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chain nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13

chain bonds :

 $1-2 \quad 2-3 \quad 3-4 \quad 4-5 \quad 4-6 \quad 5-12 \quad 5-13 \quad 6-7 \quad 7-8 \quad 8-9 \quad 9-10 \quad 10-11$

exact bonds :

 $1-2 \quad 2-3 \quad 3-4 \quad 4-5 \quad 4-6 \quad 6-7 \quad 7-8 \quad 8-9 \quad 9-10 \quad 10-11$

normalized bonds :

5-12 5-13

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR

OH OH
$$CH_2$$
 CH_2 C

Structure attributes must be viewed using STN Express query preparation.

=> s 11 full

FULL SEARCH INITIATED 14:06:40 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 594546 TO ITERATE

100.0% PROCESSED 594546 ITERATIONS

38 ANSWERS

SEARCH TIME: 00.00.06

L2 38 SEA SSS FUL L1

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FILE COVERS 1907 - 29 Sep 2009 VOL 151 ISS 14
FILE LAST UPDATED: 28 Sep 2009 (20090928/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2009

CAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

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http://www.cas.org/legal/infopolicy.html This file contains CAS Registry Numbers for easy and accurate substance identification. The ALL, BIB, MAX, and STD display formats in the CA/CAplus family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 9. => s 12 L3 80 L2 => s 13 and (infarction or cerebral or stroke or neural or regeneration or neurodegeneration) 50883 INFARCTION 119523 CEREBRAL 44645 STROKE 95204 NEURAL 133849 REGENERATION 12874 NEURODEGENERATION L434 L3 AND (INFARCTION OR CEREBRAL OR STROKE OR NEURAL OR REGENERATI ON OR NEURODEGENERATION) => d ibib i-'I-' IS NOT A VALID FORMAT FOR FILE 'CAPLUS' The following are valid formats: ABS ----- GI and AB ALL ----- BIB, AB, IND, RE APPS ----- AI, PRAI BIB ----- AN, plus Bibliographic Data and PI table (default) CAN ----- List of CA abstract numbers without answer numbers CBIB ----- AN, plus Compressed Bibliographic Data CLASS ----- IPC, NCL, ECLA, FTERM DALL ----- ALL, delimited (end of each field identified) DMAX ----- MAX, delimited for post-processing FAM ----- AN, PI and PRAI in table, plus Patent Family data FBIB ----- AN, BIB, plus Patent FAM IND ----- Indexing data IPC ----- International Patent Classifications MAX ----- ALL, plus Patent FAM, RE PATS ----- PI, SO SAM ----- CC, SX, TI, ST, IT SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers; SCAN must be entered on the same line as the DISPLAY, e.g., D SCAN or DISPLAY SCAN) STD ----- BIB, CLASS IABS ----- ABS, indented with text labels IALL ----- ALL, indented with text labels IBIB ----- BIB, indented with text labels IMAX ----- MAX, indented with text labels ISTD ----- STD, indented with text labels

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OIBIB ----- OBIB, indented with text labels

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HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)

containing hit terms

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HITSTR ----- HIT RN, its text modification, its CA index name, and

its structure diagram

HITSEQ ----- HIT RN, its text modification, its CA index name, its

structure diagram, plus NTE and SEQ fields

FHITSTR ---- First HIT RN, its text modification, its CA index name, and

its structure diagram

FHITSEQ ---- First HIT RN, its text modification, its CA index name, its

structure diagram, plus NTE and SEQ fields

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L4 ANSWER 1 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:68314 CAPLUS

DOCUMENT NUMBER: 150:463976

TITLE: Methodological Quality of Animal Studies of

Neuroprotective Agents Currently in Phase II/III Acute

Ischemic Stroke Trials

AUTHOR(S): Philip, Maria; Benatar, Michael; Fisher, Marc; Savitz,

Sean I.

CORPORATE SOURCE: Department of Neurology, Houston Medical School,

University of Texas, Houston, TX, 77030, USA

SOURCE: Stroke (2009), 40(2), 577-581 CODEN: SJCCA7; ISSN: 0039-2499

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal LANGUAGE: English

REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib hit 1

L4 ANSWER 1 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:68314 CAPLUS

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AUTHOR(S): Philip, Maria; Benatar, Michael; Fisher, Marc; Savitz,

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CORPORATE SOURCE: Department of Neurology, Houston Medical School,

University of Texas, Houston, TX, 77030, USA

SOURCE: Stroke (2009), 40(2), 577-581

CODEN: SJCCA7; ISSN: 0039-2499

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal LANGUAGE: English

REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

- TI Methodological Quality of Animal Studies of Neuroprotective Agents Currently in Phase II/III Acute Ischemic Stroke Trials
- AΒ Background and Purpose: Numerous neuroprotective agents have proven effective in animal stroke studies, but every drug has failed to achieve its primary outcome when brought forward to clin. trials. We analyzed the quality and adequacy of animal studies supporting the efficacy of NXY-059 and other neuroprotective agents that are currently being investigated in phase II/III trials. Methods: We conducted a systematic search of all neuroprotective drugs in Phase II or III trials and collected data from animal studies of focal cerebral ischemia testing agents systemically administered within 24 h of occlusion. The methodol. rigor of each individual study was evaluated using 5 criteria derived from the STAIR guidelines. The adequacy of the preclin. "package" for each drug was then evaluated by combining the results of all studies for each drug to determine which of a further 5 STAIR criteria were met before moving forward from animal to human studies. Results: Our search yielded 13 agents of which 10 had published data in peer-reviewed journals. There is substantial within-drug variability in the quality of preclin. studies as well as substantial variation in the completeness of the collective preclin. literature for different drugs. There has been little or no improvement in the quality of animal studies since NXY-059, and current agents have not been subjected to a more complete preclin. evaluation. Conclusion: There is significant heterogeneity in the quality of animal testing for neuroprotective agents in stroke. Drugs in the post-SAINT era have not been subjected to more thorough preclin. evaluation.
- ST neuroprotectant NXY 059 cerebral ischemia stroke erythropoietin caffeinol minocycline
- IT Brain ischemia

Human

Neuroprotective agents

Stroke

(methodol. quality and adequacy of animal testing for focal cerebral ischemia supporting efficacy of NXY-059 and other neuroprotectants showed heterogeneity in patient with acute ischemic stroke)

IT Albumins, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methodol. quality and adequacy of animal testing for focal cerebral ischemia supporting efficacy of albumin showed heterogeneity in patient with acute ischemic stroke)

IT Interferons

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(β ; methodol. quality and adequacy of animal testing for focal cerebral ischemia supporting efficacy of interferon- β showed heterogeneity in patient with acute ischemic stroke)

IT 168021-79-2, NXY-059

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methodol. quality and adequacy of animal testing for focal cerebral ischemia supporting efficacy of NXY-059 and other neuroprotectants showed heterogeneity in patient with acute ischemic stroke)

IT 185517-21-9, ONO2506

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methodol. quality and adequacy of animal testing for focal cerebral ischemia supporting efficacy of ONO2506 showed heterogeneity in patient with acute ischemic stroke)

IT 823805-47-6, Caffeinol

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methodol. quality and adequacy of animal testing for focal cerebral ischemia supporting efficacy of caffeinol showed heterogeneity in patient with acute ischemic stroke)

IT 11096-26-7, Erythropoietin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methodol. quality and adequacy of animal testing for focal cerebral ischemia supporting efficacy of erythropoietin showed heterogeneity in patient with acute ischemic stroke)

IT 143011-72-7, Granulocyte colony-stimulating factor

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methodol. quality and adequacy of animal testing for focal

cerebral ischemia supporting efficacy of granulocyte colony-stimulating factor showed heterogeneity in patient with acute ischemic stroke)

IT 7439-95-4, Magnesium, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methodol. quality and adequacy of animal testing for focal cerebral ischemia supporting efficacy of magnesium showed heterogeneity in patient with acute ischemic stroke)

IT 10118-90-8, Minocycline

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methodol. quality and adequacy of animal testing for focal cerebral ischemia supporting efficacy of minocycline showed heterogeneity in patient with acute ischemic stroke)

IT 134234-12-1, Traxoprodil

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methodol. quality and adequacy of animal testing for focal cerebral ischemia supporting efficacy of traxoprodil showed heterogeneity in patient with acute ischemic stroke)

=> d ibib hit 2-34

L4 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:721678 CAPLUS

DOCUMENT NUMBER: 149:417318

TITLE: Prophylactic effects of arundic acid (ONO-2506) in the

progression of delayed infarct expansion after permanent middle cerebral artery occlusion

in mice

AUTHOR(S): Kondo, Yogo; Washizu, Makoto; Orima, Hiromitsu; Mori,

Takashi

CORPORATE SOURCE: Veterinary Radiology, Nippon Veterinary and Life

Science University, Musashino-shi, Tokyo, 180-8602,

Japan

SOURCE: Nippon Jui Seimei Kagaku Daigaku Kenkyu Hokoku (2007),

56, 42-51 CODEN: NJSKAM

PUBLISHER: Nippon Jui Seimei Kagaku Daigaku DOCUMENT TYPE: Journal; (computer optical disk)

LANGUAGE: Japanese

- TI Prophylactic effects of arundic acid (ONO-2506) in the progression of delayed infarct expansion after permanent middle cerebral artery occlusion in mice
- Recently, it has been shown that the infarct volume increases for the next AB several days after the induction of ischemia ("delayed infarct expansion"). Yet, it is reported that the occurrence of this phenomenon is closely associated with astrocytic activation in the peri-infarct area, which causes overexpression of S100 protein. Here, we examined the preventive effects on the progression of delayed infarct expansion in the permanent middle cerebral artery occlusion (pMCAO) mouse model using arundic acid (ONO-2506, Ono pharmaceutical co., Ltd.), which is known to oppose astrocytic activation through its inhibitory action on S100B synthesis. The activation of astrocytes in the peri-infarct area was inhibited by the administration of arundic acid, resulting in the significant reduction of GAFP burden (astrocytosis burden)/S100 burden as well as Iba-1 burden (microgliosis burden) in the peri-infarct area. In parallel with the above evidence, the number of TUNEL pos. cells was decreased in the peri-infarct area and delayed infarct expansion was also completely mitigated by the administration of arundic acid. Moreover, the administration of arundic acid significantly improved the exacerbation of neurol. score from 1 day after pMCAO and the effect was showed in every time-point examined Together, the above data showed that the modulation of astrocytic activation though inhibition of S100 protein resulted in the amelioration of delayed infarct expansion as well as the improvement of neurol. deficits after ischemia. Thus, pharmacol. modulation of astrocytic activation by arundic acid may confer a useful therapeutic strategy against acute as well as sub acute ischemic brain damage. ST prophylaxis arundate ONO2506 neuroprotectant brain ischemia neuron

infarction
IT S-100 proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study) (S-100B; prophylactic effects of arundic acid (ONO-2506) in progression of delayed infarct expansion after permanent middle cerebral artery occlusion in mice)

IT Astrocyte

(activated; prophylactic effects of arundic acid (ONO-2506) in progression of delayed infarct expansion after permanent middle cerebral artery occlusion in mice)

IT Brain infarction

Brain ischemia

Neuroprotective agents

Prophylaxis

(prophylactic effects of arundic acid (ONO-2506) in progression of delayed infarct expansion after permanent middle cerebral artery occlusion in mice) $\frac{1}{2}$

IT 185517-21-9, ONO-2506

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prophylactic effects of arundic acid (ONO-2506) in progression of delayed infarct expansion after permanent middle cerebral artery occlusion in mice) $\frac{1}{2}$

L4 ANSWER 3 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1300952 CAPLUS

DOCUMENT NUMBER: 147:515078

TITLE: Histone deacetylase inhibitors for the treatment of

neurodegeneration

INVENTOR(S): Steinkuhler, Christian; Bain, Gretchen; Trauger, John

PATENT ASSIGNEE(S): Merck & Co., Inc., USA; Istituto di Ricerche di

Biologia Molecolare P. Angeletti S.p.A.

SOURCE: PCT Int. Appl., 19pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA | PATENT NO. | | | | | D | DATE | | APPLICATION NO. | | | | | | DATE | | |
|--------|------------|------|------|------|-----|------|------|-------|-----------------|----------|------|------|---------|-----|----------|------|-----|
| | 2007 | | | | | | 2007 | | |
WO 2 | 007- | US10 |
563 | | 20070430 | | |
| WO | 2007 | 1304 | 19 | | А3 | | 2008 | 1211 | | | | | | | | | |
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- TI Histone deacetylase inhibitors for the treatment of neurodegeneration
- IT Nervous system, disease

(Charcot-Marie-Tooth; histone deacetylase inhibitors for treatment of neurodegeneration)

IT Brain disease

(Gilles de la Tourette syndrome; histone deacetylase inhibitors for treatment of neurodegeneration)

IT Nervous system, disease

(Huntington's chorea; histone deacetylase inhibitors for treatment of neurodegeneration)

IT Mental and behavioral disorders

(Pick's disease; histone deacetylase inhibitors for treatment of neurodegeneration)

IT Brain disease

(cerebellum degeneration; histone deacetylase inhibitors for treatment of neurodegeneration)

IT Nervous system, disease

(corticobasal degeneration; histone deacetylase inhibitors for treatment of neurodegeneration)

IT Nervous system, disease

(dystonia musculorum deformans; histone deacetylase inhibitors for treatment of neurodegeneration)

IT Tremor

(familial; histone deacetylase inhibitors for treatment of neurodegeneration)

IT Eye, disease

(hereditary optic atrophy; histone deacetylase inhibitors for treatment of neurodegeneration)

IT Alzheimer disease

Amyotrophic lateral sclerosis

Anti-Alzheimer's agents

Antiparkinsonian agents

Central nervous system agents

Creutzfeldt-Jakob disease Drug delivery systems Drug screening Human Lewy body dementia Multiple sclerosis Nervous system agents Neurodegenerative disease Parkinson's disease Psychotropics Retinitis pigmentosa Stroke (histone deacetylase inhibitors for treatment of neurodegeneration) Spinal cord disease (injury; histone deacetylase inhibitors for treatment of neurodegeneration) Nerve, disease (neuropathy, chronic progressive; histone deacetylase inhibitors for treatment of neurodegeneration) Dementia (pre-senile; histone deacetylase inhibitors for treatment of neurodegeneration) Paralysis (pseudobulbar; histone deacetylase inhibitors for treatment of neurodegeneration) Dementia (senile; histone deacetylase inhibitors for treatment of neurodegeneration) Nervous system, disease (spinocerebellar degeneration; histone deacetylase inhibitors for treatment of neurodegeneration) Brain disease (trauma; histone deacetylase inhibitors for treatment of neurodegeneration) Dementia (vascular; histone deacetylase inhibitors for treatment of neurodegeneration) 9076-57-7, Histone deacetylase RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study) (HDAC; histone deacetylase inhibitors for treatment of neurodegeneration) 438496-81-2, SIRT1 deacetylase RL: BSU (Biological study, unclassified); BIOL (Biological study) (histone deacetylase inhibitors for treatment of neurodegeneration) 99-66-1, Valproic acid 183506-66-3 185517-21-9, Arundic acid 209783-80-2, MS 27-275 RL: PAC (Pharmacological activity); BIOL (Biological study) (histone deacetylase inhibitors for treatment of neurodegeneration) ANSWER 4 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:1003817 CAPLUS DOCUMENT NUMBER: 149:246193 TITLE: Solid-phase synthesis of isotope-labeled 2-propyloctanoic acid, a therapeutic agent for stroke and Alzheimer's disease Ho, Jonathan Z.; Tang, Cheng; Braun, Matthew P. AUTHOR(S):

Rahway, NJ, 07065, USA

Department of Drug Metabolism, Merck and Co. Inc.,

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CORPORATE SOURCE:

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Journal of Labelled Compounds and Radiopharmaceuticals
SOURCE .
                         (2007), 50(5-6), 496-497
CODEN: JLCRD4; ISSN: 0362-4803
                         John Wiley & Sons Ltd.
PUBLISHER:
DOCUMENT TYPE:
                         Journal
                         English
LANGUAGE:
OTHER SOURCE(S):
                        CASREACT 149:246193
                               THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
     Solid-phase synthesis of isotope-labeled 2-propyloctanoic acid, a
     therapeutic agent for stroke and Alzheimer's disease
ST
    propyloctanoate carbon 13 14 solid phase synthesis symposium; anti
     stroke Alzheimer propyloctanoate carbon 13 14 prepn symposium
ΙT
    Alzheimer disease
    Anti-Alzheimer's agents
     Nervous system agents
     Solid phase synthesis
       Stroke
        (solid-phase synthesis of carbon-13 and -14 propyloctanoate as
        therapeutic for stroke and Alzheimer's disease)
ΤT
     Carboxylic acids
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (solid-phase synthesis of carbon-13 and -14 propyloctanoate as
        therapeutic for stroke and Alzheimer's disease)
ΙT
     1044754-43-9P
     RL: PEP (Physical, engineering or chemical process); SPN (Synthetic
     preparation); PREP (Preparation); PROC (Process)
        (solid-phase synthesis of carbon-13 and -14 propyloctanoate as
        therapeutic for stroke and Alzheimer's disease)
ΙT
     1044754-45-1P
     RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP
     (Preparation)
        (solid-phase synthesis of carbon-13 and -14 propyloctanoate as
        therapeutic for stroke and Alzheimer's disease)
     106-94-5, 1-Bromopropane 106-95-6, Allyl bromide, reactions
                                                                    109-52-4,
ΙT
     Pentanoic acid, reactions 111-25-1, Hexyl bromide 124-07-2, Octanoic
     acid, reactions 3106-28-3, Octanoic-1-14C acid
                                                       159118-65-7,
     Octanoic-1, 2, 3, 4-13C4 acid
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (solid-phase synthesis of carbon-13 and -14 propyloctanoate as
        therapeutic for stroke and Alzheimer's disease)
ΙT
     5633-91-0P, 2-Allyloctanoic acid
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (solid-phase synthesis of carbon-13 and -14 propyloctanoate as
        therapeutic for stroke and Alzheimer's disease)
     1129-37-9D, polystyrene bound
ΤТ
     RL: RGT (Reagent); RACT (Reactant or reagent)
        (solid-phase synthesis of carbon-13 and -14 propyloctanoate as
        therapeutic for stroke and Alzheimer's disease)
ΙΤ
     99-66-1P, 2-Propylpentanoic acid
                                        3004-93-1P, 2-Methyloctanoic acid
     25234-25-7P, 2-Ethyloctanoic acid
                                         31080-41-8P,
     2-Propyloctanoic acid
                             1044754-42-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (solid-phase synthesis of carbon-13 and -14 propyloctanoate as
        therapeutic for stroke and Alzheimer's disease)
T.4
    ANSWER 5 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN
                    2007:703301 CAPLUS
ACCESSION NUMBER:
                         147:102198
DOCUMENT NUMBER:
TITLE:
                        Therapeutic agent for acute cerebral infarct
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Kajitani, Hitoshi; Funakoshi, Yosuke; Kitao, Dai

INVENTOR(S):

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 45pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA: | PATENT NO. | | | | KIN: | KIND DATE | | | APPLICATION NO. | | | | | | DATE | | |
|----------|------------|------|------|-----|------|-----------|------|------|-----------------|------------------|------|------|-------|------|-------|------|--------|
| WO | 2007 | 0729 | 02 | | A1 | | | | | WO 2006-JP325481 | | | | | 2 | 0061 | 221 |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | GT, | HN, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KM, | KN, |
| | | KP, | KR, | KΖ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, |
| | | MN, | MW, | MX, | MY, | ΜZ, | NA, | NG, | ΝI, | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, |
| | | RS, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | SV, | SY, | ΤJ, | TM, | TN, | TR, | TT, |
| | | TZ, | UA, | UG, | US, | UΖ, | VC, | VN, | ZA, | ZM, | ZW | | | | | | |
| | RW: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FΙ, | FR, | GB, | GR, | HU, | IE, |
| | | IS, | IT, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, |
| | | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | ΝE, | SN, | TD, | ΤG, | BW, | GH, |
| | | GM, | ΚE, | LS, | MW, | ΜZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, | BY, |
| | | KG, | KΖ, | MD, | RU, | ТJ, | TM | | | | | | | | | | |
| EP | 1974 | 727 | | | A1 | | 2008 | 1001 | | EP 2 | 006- | 8429 | 89 | | 2 | 0061 | 221 |
| | R: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FΙ, | FR, | GB, | GR, | HU, | IE, |
| | | IS, | IT, | LI, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR | |
| US | 2009 | | | | | | | | | | | | | | | | 520 |
| PRIORITY | Y APP | LN. | INFO | . : | | | | | | JP 2 | 005- | 3691 | 54 | | A 2 | 0051 | 222 |
| | | | | | | | | | | WO 2 | 006- | JP32 | 5481 | • | W 2 | 0061 | 221 |
| REFERENC | CE CO | UNT: | | | 4 | Τ | HERE | ARE | 4 C | ITED | REF: | EREN | CES I | AVAI | LABL: | E FO | RTHIS |
| | | | | | | R | ECOR | D. A | LL C | ITAT | IONS | AVA | ILAB | LE I | N TH | E RE | FORMAT |

TI Therapeutic agent for acute cerebral infarct

AB Disclosed is a therapeutic agent for acute cerebral infarct which comprises (2R)-2-propyloctanoic acid or a salt thereof and is intended to be administered 5-72 h after the onset of symptoms. The therapeutic agent is safe and can ameliorate acute cerebral infarct or various conditions accompanied by acute cerebral infarct in a patient suffering from cerebral infarct, particularly a patient suffering from cerebral infarct who shows a score of 22 or smaller as measured according to NIH stroke scale, and therefore the therapeutic agent is useful for the treatment of acute cerebral infarct.

ST propyloctanoate injection acute cerebral infarction

IT Brain infarction

(acute; propyloctanoate for treatment of acute cerebral infarction and various conditions accompanied by infarction)

IT Mental activity

(consciousness, disorders; propyloctanoate for treatment of acute cerebral infarction and various conditions accompanied by infarction)

IT Pharmaceutical injections

(i.v. injections; propyloctanoate for treatment of acute cerebral infarction and various conditions accompanied by infarction)

IT Human

Infusion drug delivery systems Motor skill disorders

Speech disorders

(propyloctanoate for treatment of acute cerebral infarction and various conditions accompanied by infarction)

L4 ANSWER 6 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:487697 CAPLUS

DOCUMENT NUMBER: 147:132809

infarction)

TITLE: Pharmacokinetics of arundic acid, an astrocyte modulating agent, in acute ischemic stroke

AUTHOR(S): Ishibashi, Hideyasu; Pettigrew, L. Creed; Funakoshi,

Yosuke; Hiramatsu, Makoto

CORPORATE SOURCE: Ono Pharma USA, Inc., Lawrenceville, NJ, USA SOURCE: Journal of Clinical Pharmacology (2007), 47(4),

445-452

CODEN: JCPCBR; ISSN: 0091-2700

PUBLISHER: Sage Publications

DOCUMENT TYPE: Journal LANGUAGE: English

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Pharmacokinetics of arundic acid, an astrocyte modulating agent, in acute ischemic stroke

AB Arundic acid is an astrocyte modulating agent that improves neurol. outcome in exptl. acute stroke models. The pharmacokinetics of arundic acid in patients with acute ischemic stroke was investigated in a randomized, double-blind study. Six groups of 8 to 9 patients each received 2, 4, 6, 8, 10, or 12 mg/kg/h of arundic acid for a daily 1-h infusion until completion of 7 doses. Maximum plasma concns. of arundic acid increased with increasing dose; however, the systemic exposure was less than dose proportional at higher doses. The mean terminal half-life was approx. 2 to 3 h. There was no excessive accumulation in plasma. Although systemic exposure in elderly patients was 30% greater than that in younger patients, the plasma concentration

to nearly or below the limit of quantification prior to next administration. The pharmacokinetics of arundic acid in acute stroke patients assessed in this study were similar to that in healthy adults.

ST arundic acid acute ischemic stroke pharmacokinetics elderly

IT Human

Stroke

(arundic acid pharmacokinetics in acute stroke patient was similar to that in healthy adult)

IT Aging, animal

(elderly; arundic acid systemic exposure in elderly acute stroke patient was greater than that in younger patients)

IT Astrocyte

(modulator; astrocyte modulator arundic acid pharmacokinetics in acute stroke patient was similar to that in healthy adult)

IT Pharmacokinetics

(pharmacokinetics of arundic acid in acute stroke patient was similar to that in healthy adult)

IT 185517-21-9, Arundic acid

RL: PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(arundic acid pharmacokinetics in acute stroke patient was similar to that in healthy adult)

L4 ANSWER 7 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:131105 CAPLUS

DOCUMENT NUMBER: 146:351131

TITLE: Expression of S100 protein and protective effect of

arundic acid on the rat brain in chronic

cerebral hypoperfusion

AUTHOR(S): Ohtani, Ryo; Tomimoto, Hidekazu; Wakita, Hideaki;

Kitaguchi, Hiroshi; Nakaji, Kayoko; Takahashi, Ryosuke

CORPORATE SOURCE: Department of Neurology, Kyoto University Graduate

School of Medicine, Kyoto, 606-8507, Japan Brain Research (2007), 1135(1), 195-200

CODEN: BRREAP; ISSN: 0006-8993

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

SOURCE:

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(3 CITINGS)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Expression of S100 protein and protective effect of arundic acid on the rat brain in chronic cerebral hypoperfusion

AΒ S100 protein is expressed primarily by astroglia in the brain, and accumulates in and around the ischemic lesions. Arundic acid, a novel astroglia-modulating agent, is neuroprotective in acute cerebral infarction, whereas the protective effects remain unknown during chronic cerebral hypoperfusion. Rats undergoing chronic cerebral hypoperfusion were subjected to a bilateral ligation of the common carotid arteries, and were allowed to survive for 3, 7 and 14days. The animals received a daily i.p. injection of 5.0, 10.0 or 20.0 mg/kg of arundic acid, or vehicle, for 14 days. Alternatively, other groups of rats received a delayed i.p. injection of 20.0 mg/kg of arundic acid or vehicle, which started from 1, 3 or 7 days after ligation and continued to 14 days. The degree of white matter (WM) lesions and the WM of rats with vehicle injections, the number of S100 protein-immunoreactive astroglia increased significantly after chronic cerebral hypoperfusion as compared to the sham-operation. A dosage of 10.0 and 20.0 mg/kg of arundic acid suppressed the numerical increase in S100 protein-immunoreactive astroglia and the WM lesions. These pathol. changes were suppressed with delayed treatment up to 7 days in terms of astroglial activation, and up to 3 days in terms of the WM lesions. The protective effects of arundic acid against WM lesions were demonstrated in a dose-dependent manner, and even after postischemic treatments. These results suggest the potential usefulness of arundic acid in the treatment of cerebrovascular WM lesions.

IT Artery

(carotid; expression of \$100 protein and protective effect of arundic acid on rat brain in chronic cerebral hypoperfusion)

IT Brain

(cerebrum; expression of S100 protein and protective effect of arundic acid on rat brain in chronic cerebral hypoperfusion)

IT Astrocyte

Brain infarction

Neuroprotective agents

(expression of S100 protein and protective effect of arundic acid on rat brain in chronic cerebral hypoperfusion)

IT S-100 proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study) (expression of S100 protein and protective effect of arundic acid on rat brain in chronic cerebral hypoperfusion)

IT Pharmaceutical injections

(i.p. injections; expression of S100 protein and protective effect of arundic acid on rat brain in chronic cerebral hypoperfusion)

185517-21-9, Arundic acid ΤТ RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (expression of S100 protein and protective effect of arundic acid on rat brain in chronic cerebral hypoperfusion) L4ANSWER 8 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006:1242136 CAPLUS DOCUMENT NUMBER: 146:266486 TITLE: Effect of arundic acid on serum S-100 β in ischemic stroke AUTHOR(S): Pettigrew, L. Creed; Kasner, Scott E.; Gorman, Mark; Atkinson, Richard P.; Funakoshi, Yosuke; Ishibashi, Hideyasu CORPORATE SOURCE: The Arundic Acid (ONO-2506) Stroke Study Group, Sanders-Brown Center on Aging, and Department of Neurology, University of Kentucky Medical Center, Lexington, KY, 40536-0230, USA Journal of the Neurological Sciences (2006), 251(1-2), SOURCE: 57-61 CODEN: JNSCAG; ISSN: 0022-510X PUBLISHER: Elsevier B.V. DOCUMENT TYPE: Journal LANGUAGE: English OS.CITING REF COUNT: THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS) REFERENCE COUNT: THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS 18 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT TΙ Effect of arundic acid on serum S-100 β in ischemic stroke AΒ We prospectively examined the effect of arundic acid (AA; ONO-2506) on S-100 β , an astrocyte-derived protein, in a phase I acute stroke study. Subjects with acute ischemic stroke were randomized to daily infusion of AA or placebo for 7 days. Serum $S-100\beta$ levels were assayed pre-infusion on Days 1-7 and post-infusion on Days 1, 3, and 7, and correlated with National Institutes of Health Stroke Scale (NIHSS). Samples were obtained from 86 subjects (46 AA, 40 placebo). Increase in S-100 β protein level from baseline was less in the AA cohort than in the placebo cohort at 7 (p = 0.0471; t-test) and 12 (p = 0.0095)-hours post-infusion on Day 3. Baseline NIHSS correlated with maximal S-100 β levels between Days 1 and 3 in the AA (r = 0.51; p = 0.0003) and placebo (r = 0.41; p = 0.0084) cohorts and in the pooled aggregate (n = 86; r = 0.46; p < 0.0001). The same correlations were observed between Day 10 NIHSS and Day 1-3 maximum serum $S-100\beta$ levels. Treatment with AA was associated with lower serum levels of S-100 β after acute ischemic stroke. Our results showing correlation between S-100 β and NIHSS indicate that this protein is a clin. relevant marker of neurol. deficit in acute stroke. arundic acid S 100beta ischemic stroke ST S-100 proteins ΤТ RL: BSU (Biological study, unclassified); BIOL (Biological study) (S-100B; arundic acid was associated with lower serum S-100 β in ischemic stroke patient) ΙT Human Stroke (arundic acid was associated with lower serum S-100 β in ischemic stroke patient) 185517-21-9, Arundic acid ΙT RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (arundic acid was associated with lower serum S-100 β in ischemic stroke patient)

L4 ANSWER 9 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1242135 CAPLUS

DOCUMENT NUMBER: 146:266485

TITLE: Safety and tolerability of arundic acid in acute

ischemic stroke

AUTHOR(S): Pettigrew, L. Creed; Kasner, Scott E.; Albers, Gregory

W.; Gorman, Mark; Grotta, James C.; Sherman, David G.;

Funakoshi, Yosuke; Ishibashi, Hideyasu

CORPORATE SOURCE: Stroke Program, Sanders-Brown Center on Aging, and

Department of Neurology, University of Kentucky Medical Center, Lexington, KY, 40536-0230, USA

SOURCE: Journal of the Neurological Sciences (2006), 251(1-2),

50-56

CODEN: JNSCAG; ISSN: 0022-510X

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD

(6 CITINGS)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Safety and tolerability of arundic acid in acute ischemic stroke

AB Arundic acid (AA; ONO-2506), a novel modulator of astrocyte activation, may improve neuronal survival after stroke. We conducted a multicenter, dose-escalating, randomized, double-blind Phase I trial of AA

in acute ischemic stroke. Subjects were randomized to treatment with AA or placebo in sequential dose tiers of 2-12 mg/kg/h (10-16 patients/group) within 24 h of stroke onset. Study drug was

infused for 1 h daily over 7 days, and follow-up terminated at 40 days. Neurol. and functional outcomes were evaluated through Day 40 as

exploratory endpoints. A total of 92 subjects were enrolled with no dose-related pattern of serious adverse events (AEs). Premature terminations caused by AEs occurred in four (8.2%) patients treated with AA and five (11.6%) treated with placebo. Two subjects treated with AA (4.1%) and four given placebo (9.3%) died. Exploratory efficacy anal. showed a trend toward improvement in the change from baseline National

Institutes of Health Stroke Scale (NIHSS) in the 8 mg/kg/h AA group on Days 3 (p = 0.023 vs. placebo), 7 (p = 0.002), 10 (p = 0.003), and 40 (p = 0.018). A dose of 8 mg/kg/h AA produced a favorable trend in

reduction of NIHSS that should be confirmed in a future clin. trial.

ST arundic acid ischemic stroke

IT Human

INVENTOR(S):

Stroke

(arundic acid was safe, effective and well tolerated in acute ischemic stroke patient)

IT 185517-21-9, Arundic acid

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (arundic acid was safe, effective and well tolerated in acute ischemic stroke patient)

L4 ANSWER 10 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1118173 CAPLUS

DOCUMENT NUMBER: 145:460491

TITLE: Neuron-repairing compositions containing (2R)-2-propyl

octanoic acid for the treatment of motion dysfunction

and neural injury Maekawa, Hitoshi

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 41pp.

opn. Kokai Tokkyo Kono,

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| | | | | |
| JP 2006290881 | A | 20061026 | JP 2006-68509 | 20060314 |
| PRIORITY APPLN. INFO.: | | | JP 2005-72839 A | 20050315 |

TI Neuron-repairing compositions containing (2R)-2-propyl octanoic acid for the treatment of motion dysfunction and neural injury

Provide the drugs for treating effectively motor dysfunction caused by, AΒ such as the peripheral nervous system disease and nervous function disorder accompanying spinal cord injury. The drugs containing (2R)-2-Pr octanoic acid, their salts, its solvate, or those prodrugs are peripheral nervous system diseases, such as neuropathy/neuropathic diseases, the nervous function disorder by the stress of the cauda-equina nerve by spinal canal restenosis, cranial nerve paralysis, diabetic peripheral nerve disorder, the myasthenia gravis, muscular dystrophy. The oral or injection compns. can also be used to treat muscular motion dysfunction caused by the central nervous system disease, such as nervous function disorder, the disk herniation/herniated disk/hernia of intervertebral disk, the Huntington's disease, myelopathic muscular atrophy, spinocerebellar degeneration, and spinal cord injury. The compns. are useful as the prevention and treatment for those symptoms and the signs related with motion dysfunction and neural damage, for example, the peripheral neuropathy /neuropathic pain, dyskinesia, etc.

ST neuron CNS agent propyloctanoic acid motion dysfunction neural injury

IT Nervous system, disease

(Huntington's chorea; neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

IT Musculoskeletal diseases

(hernia; neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

IT Drug delivery systems

(injections; neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

IT Spinal cord, disease

(injury; neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

IT Analgesics

Central nervous system, disease

Central nervous system agents

Muscular dystrophy

Paralysis

Peripheral nervous system, disease

Spinal muscular atrophy

(neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

IT Pain

(neuropathic pain; neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

IT Drug delivery systems

(oral; neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

IT Drug delivery systems

(powders; neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

IT Drug delivery systems

(prodrugs; neuron-repairing compns. containing (2R)-2-Pr octanoic acid for

the treatment of motion dysfunction and neural injury)

IT Artery, disease

(restenosis; neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

IT Injury

(spinal cord; neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

IT Nervous system, disease

(spinocerebellar degeneration; neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

IT 185517-21-9, (2R)-2-Propyloctanoic acid <math>185517-21-9D

(2R)-2-Propyloctanoic acid, salts and solvates

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (neuron-repairing compns. containing (2R)-2-Pr octanoic acid for the treatment of motion dysfunction and neural injury)

L4 ANSWER 11 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:946669 CAPLUS

DOCUMENT NUMBER: 146:453637

TITLE: Could treatment with arundic acid (ONO-2506) increase

vulnerability for depression?

AUTHOR(S): Manev, Radmila; Manev, Hari

CORPORATE SOURCE: Department of Psychiatry and the Psychiatric

Institute, University of Illinois at Chicago, Chicago,

IL, 60612, USA

SOURCE: Medical Hypotheses (2006), 67(5), 1170-1172

CODEN: MEHYDY; ISSN: 0306-9877

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT review. Arundic acid (ONO-2506) is believed to be neuroprotective

AB A review. Arundic acid (ONO-2506) is believed to be neuroprotective because of its actions on glia cells; i.e., its inhibitory effects on the synthesis of a calcium-binding protein S100B. ONO-2506 is undergoing clin. trials for the treatment of patients with stroke and Alzheimer's disease. Recent clin. studies point to a pervasive comorbidity of depression with stroke and Alzheimer's disease. Previously, S100B has been implicated in the pathobiol. mechanisms of depression. Preclin. studies have shown that antidepressant treatment significantly increases brain S100B. Here we hypothesize that available data that link S100B with depression, along with the proposed inhibitory action of ONO-2506 on S100B synthesis, indicate that this compound could increase vulnerability for depression in patients at risk for this disorder, and we propose that evaluation of patients with stroke and Alzheimer's disease for the presence of depression should be routine in clin. trials employing ONO-2506. Although it may be open for discussion whether the neuroprotective effects of ONO-2506 are exclusively due to its inhibition of S100B synthesis, the latter action of ONO-2506 warrants studies of the effects of this drug in the pathobiol. of depression.

ST review arundic acid depression stroke Alzheimer disease

IT S-100 proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study) (S-100B; arundic acid inhibits synthesis of calcium-binding protein S100B that could increase vulnerability for depression in patient with stroke and Alzheimer's disease)

IT Alzheimer disease

Depression

Human

Neuroprotective agents

Stroke

(arundic acid inhibits synthesis of calcium-binding protein S100B that could increase vulnerability for depression in patient with stroke and Alzheimer's disease)

185517-21-9, Arundic acid ΙT

> RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(arundic acid inhibits synthesis of calcium-binding protein S100B that could increase vulnerability for depression in patient with stroke and Alzheimer's disease)

ANSWER 12 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

2006:777622 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 145:224763

TITLE: Arundic acid ameliorates cerebral

amyloidosis and gliosis in Alzheimer transgenic mice

Mori, Takashi; Town, Terrence; Tan, Jun; Yada, AUTHOR(S):

Nobumichi; Horikoshi, Yuko; Yamamoto, Junki; Shimoda, Taiji; Kamanaka, Yoshihisa; Tateishi, Narito; Asano,

Takao

Institute of Medical Science, Saitama Medical School, CORPORATE SOURCE:

Kawagoe, Saitama, Japan

SOURCE: Journal of Pharmacology and Experimental Therapeutics

(2006), 318(2), 571-578

CODEN: JPETAB; ISSN: 0022-3565

PUBLISHER: American Society for Pharmacology and Experimental

Therapeutics

DOCUMENT TYPE: Journal LANGUAGE: English

ТΤ

THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD OS.CITING REF COUNT:

(7 CITINGS)

REFERENCE COUNT: THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS 33 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Arundic acid ameliorates cerebral amyloidosis and gliosis in

Alzheimer transgenic mice

Like microglia, reactive astrocytes produce a myriad of neurotoxic substances in various brain pathologies, such as Alzheimer's disease (AD), trauma, and cerebral ischemia. Among the numerous products of reactive astrocytes, attention has recently been directed toward the possible detrimental role of S100B, because the protein has been shown to be highly expressed along with the progression of brain damage and to exert neurotoxic effects at high concns. The present study aimed to examine the possible role of astrocyte-derived S100B in the progression of cerebral amyloidosis and gliosis in transgenic mice overproducing mutant amyloid precursor protein (Tg APPsw mice, line 2576). For this purpose, arundic acid (Ono Pharmaceutical Co., Ltd., Mishima, Osaka, Japan), which is known to neg. regulate astrocyte synthesis of S100B, was orally administered to Tq APPsw mice for 6 mo from 12 mo of age, and the effects of the agent on the above parameters were examined Here, we report that β -amyloid deposits along with amyloid- β peptide/S100B levels, as well as β -amyloid plaque-associated reactive gliosis (astrocytosis and microgliosis), were significantly ameliorated in arundic acid-treated Tg APPsw mice relative to vehicle-treated Tg APPsw mice at 19 mo of age. Based on the above results, arundic acid is considered to deserve further exploration as a promising therapeutic agent for AD. ΤТ

Calcium-binding proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study) (S-100B; arundic acid ameliorates cerebral amyloidosis and gliosis in Alzheimer transgenic mice)

ΤТ Brain, disease

(amyloidosis; arundic acid ameliorates cerebral amyloidosis and gliosis in Alzheimer transgenic mice) ΤТ Alzheimer's disease Anti-Alzheimer's agents Astrocyte (arundic acid ameliorates cerebral amyloidosis and gliosis in Alzheimer transgenic mice) ΙT Amyloid precursor proteins RL: BSU (Biological study, unclassified); BIOL (Biological study) (arundic acid ameliorates cerebral amyloidosis and gliosis in Alzheimer transgenic mice) ΙT Astrocyte (astrocytosis; arundic acid ameliorates cerebral amyloidosis and gliosis in Alzheimer transgenic mice) ΙT Amyloidosis (cerebral; arundic acid ameliorates cerebral amyloidosis and gliosis in Alzheimer transgenic mice) ΙT Neuroglia, disease (gliosis; arundic acid ameliorates cerebral amyloidosis and gliosis in Alzheimer transgenic mice) ΤT Neuroglia (microglia; arundic acid ameliorates cerebral amyloidosis and gliosis in Alzheimer transgenic mice) ΙT Cytoprotective agents Nervous system agents (neuroprotective agents; arundic acid ameliorates cerebral amyloidosis and gliosis in Alzheimer transgenic mice) ΙT Amyloid RL: BSU (Biological study, unclassified); BIOL (Biological study) $(\beta-;$ arundic acid ameliorates cerebral amyloidosis and gliosis in Alzheimer transgenic mice) ΤТ 185517-21-9, Arundic acid RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (arundic acid ameliorates cerebral amyloidosis and gliosis in Alzheimer transgenic mice) ANSWER 13 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006:626131 CAPLUS DOCUMENT NUMBER: 145:116338 TITLE: Role of the astrocyte-specific protein S100B in acute stroke AUTHOR(S): Shinagawa, Rika; Shimoda, Taiji; Kagamiishi, Yoshifumi; Kamanaka, Yoshihisa CORPORATE SOURCE: Res. Div., Ono Pharmaceutical Co., Ltd., Osaka, 618-8585, Japan Nippon Yakurigaku Zasshi (2006), 127(6), 485-488 SOURCE: CODEN: NYKZAU; ISSN: 0015-5691 Nippon Yakuri Gakkai PUBLISHER: DOCUMENT TYPE: Journal; General Review LANGUAGE: Japanese THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD OS.CITING REF COUNT: 1 (1 CITINGS) ΤI Role of the astrocyte-specific protein S100B in acute stroke A review on roles of brain ischemia-induced astrocyte activation and AB astrocyte-specific S100B in acute stroke, and neuroprotective action mechanism of arundic acid (ONO-2506) through inhibiting astrocyte activation and S100B formation. review astrocyte S100B stroke; arundic acid neuroprotectant ST astrocyte S100B inhibition review Calcium-binding proteins TΤ

RL: ADV (Adverse effect, including toxicity); BSU (Biological study,

unclassified); BIOL (Biological study)

(S-100B; astrocyte-specific protein S100B in acute stroke and action mechanism of neuroprotective arundic acid)

IT Astrocyte

(astrocyte-specific protein S100B in acute stroke and action mechanism of neuroprotective arundic acid)

IT Cytoprotective agents
Nervous system agents

(neuroprotective agents; astrocyte-specific protein S100B in acute stroke and action mechanism of neuroprotective arundic acid)

IT Brain, disease

(stroke; astrocyte-specific protein S100B in acute stroke and action mechanism of neuroprotective arundic acid)

IT 185517-21-9, Arundic acid

RL: BSU (Biological study, unclassified); DMA (Drug mechanism of action); PAC (Pharmacological activity); BIOL (Biological study)

(astrocyte-specific protein \$100B in acute stroke and action mechanism of neuroprotective arundic acid)

L4 ANSWER 14 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:541123 CAPLUS

DOCUMENT NUMBER: 144:495432

TITLE: Drugs containing (2R)-2-propyloctanoic acid and other

active agents for treatment of neurodegenerative

disease

INVENTOR(S): Tateishi, Shigeto; Shimoda, Taiji; Shinagawa, Rika

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------------------------|------|-------------------------|----------------------------------|------------------------|
| | | | | |
| JP 2006143708 PRIORITY APPLN. INFO.: | А | 20060608 | JP 2005-302476
JP 2004-304933 | 20051018
A 20041019 |
| OS.CITING REF COUNT: | 1 | THERE ARE 1 (1 CITINGS) | CAPLUS RECORDS THAT | CITE THIS RECORD |

IT Brain, disease

(infarction; drugs containing (2R)-2-propyloctanoic acid and other active agents for treatment of neurodegenerative disease)

IT Nerve regeneration

(promoters; drugs containing (2R)-2-propyloctanoic acid and other active agents for treatment of neurodegenerative disease)

IT 185517-21-9

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(drug synergist; drugs containing (2R)-2-propyloctanoic acid and other active agents for treatment of neurodegenerative disease)

L4 ANSWER 15 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:494188 CAPLUS

DOCUMENT NUMBER: 145:7747

TITLE: Preparation of prodrugs of (2R)-2-propyloctanoic acid

for the treatment of stroke

INVENTOR(S): Munoz, Benito; Payne, Joseph E.; Prasit, Petpiboon;

Reger, Thomas S.; Smith, Nicholas D.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA' | PATENT NO. | | | | | KIND DATE | | | APPLICATION NO. | | | | | | D. | ATE | | |
|--------|------------|------|-----|-----|------|-----------|------|------|-----------------|-------|------|---------------|------|-----|----------|------|-----|--|
| | | | | | | | | | | WO 2 | 005- | JS40 | 727 | | 20051110 | | | |
| WO | 2006 | 0553 | 81 | | А3 | | 2006 | 0803 | | | | | | | | | | |
| | W: | | | | • | | • | ΑZ, | | | | • | • | | | | | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FΙ, | GB, | GD, | |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | ΚM, | KN, | KΡ, | KR, | |
| | | KΖ, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | |
| | | MZ, | NA, | NG, | ΝΙ, | NO, | NΖ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | |
| | | SG, | SK, | SL, | SM, | SY, | ТJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | |
| | | VN, | YU, | ZA, | ZM, | ZW | | | | | | | | | | | | |
| | RW: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FΙ, | FR, | GB, | GR, | HU, | ΙE, | |
| | | IS, | ΙΤ, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | |
| | | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | ΤG, | BW, | GH, | |
| | | GM, | ΚE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | ΑM, | ΑZ, | BY, | |
| | | KG, | KΖ, | MD, | RU, | ΤJ, | TM | | | | | | | | | | | |
| AU | 2005 | 3067 | 41 | | A1 | | 2006 | 0526 | | AU 2 | 005- | 3067 | 41 | | 2 | 0051 | 110 | |
| CA | 2587 | 040 | | | A1 | | 2006 | 0526 | | CA 2 | 005- | 2587 | 040 | | 2 | 0051 | 110 | |
| EP | 1814 | 838 | | | A2 | | 2007 | 8080 | | EP 2 | 005- | 8515 | 01 | | 2 | 0051 | 110 | |
| | R: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | |
| | | IS, | | | | | | MC, | | | | | | | | | | |
| CN | 1010 | 5684 | 2 | | Α | | 2007 | 1017 | | CN 2 | 005- | 8003 | 8863 | | 2 | 0051 | 110 | |
| JP | 2008 | 5205 | 69 | | Τ | | 2008 | 0619 | | JP 2 | 007- | 5413 | 11 | | 2 | 0051 | 110 | |
| IN | 2007 | CN01 | 651 | | Α | | 2007 | 0831 | | IN 2 | 007- | CN16 | 51 | | 2 | 0070 | 423 | |
| US | 2008 | 0132 | 488 | | A1 | | 2008 | 0605 | | US 2 | 007- | 6678 | 14 | | 2 | 0070 | 515 | |
| US | 7495 | 029 | | | В2 | | 2009 | 0224 | | | | | | | | | | |
| KR | 2007 | 0853 | 79 | | Α | | 2007 | 0827 | | KR 2 | 007- | 7111: | 32 | | 2 | 0070 | 516 | |
| RIORIT | | | | | | | | | | US 2 | | | | | | 0041 | 116 | |
| | | | | | | | | | | WO 2 | 005- | JS40 | 727 | 1 | W 2 | 0051 | 110 | |
| THER S | OURCE | (S): | | | CASI | REAC | T 14 | 5:77 | 47; | MARP. | AT 1 | 45 : 7 | 747 | | | | | |

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

- Preparation of prodrugs of (2R)-2-propyloctanoic acid for the treatment of ΤI
- AΒ Prodrugs of (2R)-2-propyloctanoic acid, and pharmaceutical compns. comprising them, which may be effective in modulating multiple events in the biochem. cascade of stroke are prepared.
- ΙT Carboxylic acids, preparation
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 - (chiral; preparation of prodrugs of (2R)-2-propyloctanoic acid for the treatment of stroke)
- ΙT Carboxylic acids, preparation
 - RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 - (esters; in the preparation of prodrugs of (2R)-2-propyloctanoic acid for the treatment of stroke)
- ΙT Esterification
 - (in the preparation of prodrugs of (2R)-2-propyloctanoic acid for the treatment of stroke)
- ΙT Drug delivery systems
 - (preparation of prodrugs of (2R)-2-propyloctanoic acid for the treatment of stroke in)
- ΙT Brain, disease
 - (stroke; preparation of prodrugs of (2R)-2-propyloctanoic acid for the treatment of stroke)
- ΤТ 1310-65-2, Lithium hydroxide 185517-21-9,

```
(2R)-2-Propyloctanoic acid 888010-84-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (in the preparation of prodrugs of (2R)-2-propyloctanoic acid for the
        treatment of stroke)
     888038-78-6P, Lithium (2R)-2-propyloctanoate
ΤТ
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (in the preparation of prodrugs of (2R)-2-propyloctanoic acid for the
        treatment of stroke)
     76-05-1, Trifluoroacetic acid, reactions 513-35-9, 2-Methyl-2-butene
     2758-06-7, (2-Bromoethyl)trimethylammonium bromide 18162-48-6,
     tert-Butyldimethylsilyl chloride 103745-39-7, Fasudil 179174-80-2
     180001-34-7, 1400-W
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of prodrugs of (2R)-2-propyloctanoic acid for the treatment of
        stroke)
     885020-48-4P
                  888010-86-4P 888010-87-5P
ΤT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of prodrugs of (2R)-2-propyloctanoic acid for the treatment of
        stroke)
ΙT
     70-11-1P, 2-Bromoacetophenone
                                     888010-85-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);
     USES (Uses)
        (preparation of prodrugs of (2R)-2-propyloctanoic acid for the treatment of
        stroke)
ΙT
     32001-55-1, Pyridinium fluoride
     RL: RGT (Reagent); RACT (Reactant or reagent)
        (preparation of prodrugs of (2R)-2-propyloctanoic acid for the treatment of
        stroke)
     888010-88-6P
                  888010-90-0P
                                  888010-91-1P 888010-92-2P
                                                                 888010-93-3P
ΙT
     888010-94-4P
                  888010-95-5P
     RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (preparation of prodrugs of (2R)-2-propyloctanoic acid for the treatment of
        stroke)
    ANSWER 16 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         2006:383645 CAPLUS
DOCUMENT NUMBER:
                         144:382019
TITLE:
                         Therapeutic agent for Parkinson's disease
                         Tateishi, Narito; Satoh, Souich; Shimoda, Taiji;
INVENTOR(S):
                        Shinagawa, Rika; Abe, Shinichiro; Morimoto, Masao;
                        Mizushima, Ken; Fujii, Akifumi; Kagamiishi, Yoshifumi
                        Ono Pharmaceutical Co., Ltd., Japan
PATENT ASSIGNEE(S):
                         PCT Int. Appl., 84 pp.
SOURCE:
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
     PATENT NO.
                        KIND DATE
                                       APPLICATION NO. DATE
                               _____
                                            _____
     WO 2006043532 A1 20060427 WO 2005-JP19092 20051018
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ,
             NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
```

SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,

YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM JP 2004-304934 A 20041019 PRIORITY APPLN. INFO.: JP 2005-59904 A 20050304 REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT Brain (cerebral function activators; therapeutic agents for Parkinson's disease containing (2R)-2-propyloctanoic acid with/without of other active agents) 59-92-7, Levodopa, biological studies 322-35-0, Benserazide 22260-51-1, Bromocriptine mesylate 28860-95-9, Carbidopa 37270-69-2, Levodopa-benserazide mixt 57308-51-7, Carbidopa-levodopa mixture 185517-21-9 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (therapeutic agents for Parkinson's disease containing (2R)-2-propyloctanoic acid with/without of other active agents) ANSWER 17 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006:309639 CAPLUS 145:499861 DOCUMENT NUMBER: 1,026 Experimental treatments in acute stroke TITLE: AUTHOR(S): O'Collins, Victoria E.; Macleod, Malcolm R.; Donnan, Geoffrey A.; Horky, Laura L.; van der Worp, Bart H.; Howells, David W. CORPORATE SOURCE: Neuroscience Lab, Department of Medicine, Austin Health, University of Melbourne, Heidelberg, Australia Annals of Neurology (2006), 59(3), 467-477 SOURCE: CODEN: ANNED3; ISSN: 0364-5134 PUBLISHER: Wiley-Liss, Inc. DOCUMENT TYPE: Journal LANGUAGE: English OS.CITING REF COUNT: THERE ARE 69 CAPLUS RECORDS THAT CITE THIS RECORD (69 CITINGS) REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 1,026 Experimental treatments in acute stroke Objective: Preclin. evaluation of neuroprotectants fostered high expectations of clin. efficacy. When not matched, the question arises whether expts. are poor indicators of clin. outcome or whether the best drugs were not taken forward to clin. trial. Therefore, we endeavored to contrast exptl. efficacy and scope of testing of drugs used clin. and those tested only exptl. Methods: We identified neuroprotectants and reports of exptl. efficacy via a systematic search. Controlled in vivo and in vitro expts. using functional or histol. end points were selected for anal. Relationships between outcome, drug mechanism, scope of testing, and clin. trial status were assessed statistically. Results: There was no evidence that drugs used clin. (114 drugs) were more effective exptl. than those tested only in animal models (912 drugs), for example, improvement in focal models averaged 31.3±16.7% vs. 24.4 \pm 32.9%, p > 0.05, resp. Scope of testing using Stroke Therapy Academic Industry Roundtable (STAIR) criteria was highly variable, and no relationship was found between mechanism and efficacy. Interpretation: The results question whether the most efficacious drugs are being selected for stroke clin. trials. This may partially

explain the slow progress in developing treatments. Greater rigor in the conduct, reporting, and anal. of animal data will improve the transition

ΤT

ΙT

ΤI

AB

of scientific advances from bench to bedside.

ST neuroprotectant brain stroke ischemia

IT Anti-inflammatory agents

(STAIR criteria indicated no evidence that neuroprotective drugs including antiinflammatory used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

IT Antioxidants

(STAIR criteria indicated no evidence that neuroprotective drugs including antioxidant used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

IT Hypothermia

(STAIR criteria indicated no evidence that neuroprotective drugs including hypothermia used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

IT Antihypertensives

 $\beta\text{-Adrenoceptor}$ antagonists

(STAIR criteria indicated no evidence that neuroprotective drugs including radix salviae miltiorrhizae used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

IT Thrombolytics

(STAIR criteria indicated no evidence that neuroprotective drugs including thrombolytic used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

IT Human

(STAIR criteria was highly variable but no link between mechanism and efficacy indicated no evidence that neuroprotectants used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

IT Natural products, pharmaceutical

(Salviae miltiorrhizae radix; STAIR criteria indicated no evidence that neuroprotective drugs including radix salviae miltiorrhizae used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

IT Ischemia

(cerebral; STAIR criteria indicated no evidence that neuroprotective drugs including radix salviae miltiorrhizae used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

IT Brain, disease

(ischemia; STAIR criteria indicated no evidence that neuroprotective drugs including radix salviae miltiorrhizae used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

IT Cytoprotective agents

Nervous system agents

(neuroprotective agents; STAIR criteria was highly variable but no link between mechanism and efficacy indicated no evidence that neuroprotectants used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

IT Brain, disease

(stroke; STAIR criteria was highly variable but no link between mechanism and efficacy indicated no evidence that neuroprotectants used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

IT 106096-93-9, Basic fibroblast growth factor
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(STAIR criteria indicated no evidence that neuroprotective drugs including radix salviae miltiorrhizae used in acute stroke patient were more effective exptl. than those tested in hamster model of focal ischemia)

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50-02-2, Dexamethasone 50-78-2, Aspirin 53-86-1, Indomethacin
ΤТ
     55-63-0, Nitroglycerin 56-40-6, Glycine, biological studies
                                                                      56-81-5,
     Glycerol, biological studies 58-74-2, Papaverine 69-65-8, D-Mannitol
     89-25-8, MCI-186 103-90-2, Paracetamol 125-73-5, Dextrorphan
     127-31-1, Fludrocortisone 317-34-0, Aminophylline 322-79-2, Triflusal
     437-74-1 439-14-5, Diazepam 456-59-7, Cyclandelate
                                                              465-65-6,
     Naloxone 525-66-6, Propranolol 533-45-9, Clomethiazole 987-78-0,
     Citicoline 1134-47-0, Baclofen 3200-06-4, Nafronyl oxalate
     6493-05-6, Pentoxifylline 7487-88-9, Magnesium sulfate, biological
              7491-74-9, Piracetam 8067-24-1, Hydergine 9002-01-1,
     Streptokinase 9002-60-2, Corticotrophin, biological studies 9004-10-8,
     Insulin, biological studies 9004-54-0, Dextran, biological studies
     9005-27-0, Pentastarch 9039-53-6, Urokinase 9039-61-6, Batroxobin
     11096-26-7, Erythropoietin 12656-61-0, Cerebrolysin 24967-93-9, Org
           25332-39-2, Desyrel 27848-84-6, Nicergoline
                                                            29122-68-7, Atenol
     10172
     35121-78-9, Prostacyclin 36702-83-7, Tinofedrine 42971-09-5,
     Vinpocetine 52468-60-7, Flunarizine 55096-26-9, Nalmefene
     55242-55-2, Propentofylline 55985-32-5, Nicardipine 60940-34-3,
     Ebselen 66085-59-4, Nimodipine 72803-02-2, PY 108-068 74863-84-6,
                 79455-30-4, Nicaraven 79902-63-9, Simvastatin 80714-61-0,
     Argatroban
     Semax 82657-92-9, Prourokinase 83712-60-1, Defibrotide 93390-81-9,
                  104443-62-1, Ganglioside GM1 104987-11-3, FK506
     Fosphenytoin
    105857-23-6, Alteplase 110101-66-1, Tirilazad 110347-85-8, CGS 19755 119431-25-3, Eliprodil 119514-66-8, Lifarizine (platelet-activating factor-acether antagonist) 128298-28-2, Remacemide
     130800-90-7, Sipatrigine 131094-16-1, Fiblast 137160-11-3, Cerestat
    142864-19-5, Enlimomab 143653-53-6, Abciximab 144494-65-5, Tirofiban 144665-07-6, Lubeluzole 144980-29-0, Repinotan 145040-37-5,
     Candesartan cilexetil 145137-38-8, Desmoteplase 153322-05-5, ARL 15896
     153436-22-7, Gavestinel 153504-81-5, Licostinel 154164-30-4, YM90K
     156756-10-4, TAK-218 161605-73-8, ZK200775 162117-90-0, S-0139
     168021-79-2, NXY-059
                           185517-21-9, ONO-2506
                                                   186495-99-8, NPS
           187523-35-9, BMS-204352 188591-67-5, CP 101606-27
                                                                 188627-80-7,
     Eptifibatide 191588-94-0, Tenecteplase 205510-69-6, RPR 109891
     210245-80-0, YM872 211866-70-5, PS519 221019-25-6, BIII 890
     222315-88-0, DP-b99 245063-59-6, NS1209 339086-79-2, LeukArrest
     339164-13-5, LDP 01 474877-20-8, Neutrophil inhibitory factor
     679809-58-6, Enoxaparin sodium 823805-47-6, Caffeinol 915091-64-4, S
     RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (STAIR criteria indicated no evidence that neuroprotective drugs
        including radix salviae miltiorrhizae used in acute stroke
        patient were more effective exptl. than those tested in hamster model
        of focal ischemia)
     9005-49-6, Certoparin, biological studies
ΙT
     RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (heparin; STAIR criteria indicated no evidence that neuroprotective
        drugs including radix salviae miltiorrhizae used in acute
        stroke patient were more effective exptl. than those tested in
        hamster model of focal ischemia)
ΙT
     7782-44-7, Oxygen, biological studies
     RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (hyperbaric; STAIR criteria indicated no evidence that neuroprotective
        drugs including radix salviae miltiorrhizae used in acute
        stroke patient were more effective exptl. than those tested in
        hamster model of focal ischemia)
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L4 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006:48593 CAPLUS

DOCUMENT NUMBER: 144:135154

TITLE: Prodrugs for (optically active) 2-propyloctanoic acid,

their compositions for improving astrocyte function, and prevention and/or treatment of neurodegenerative

disease with the prodrugs

INVENTOR(S): Nakayama, Kosuke

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|----------------------------------|----------------------|
| | | | | |
| JP 2006016319
PRIORITY APPLN. INFO.: | A | 20060119 | JP 2004-193923
JP 2004-193923 | 20040630
20040630 |

OTHER SOURCE(S): MARPAT 144:135154

IT Circulation

(cerebral, improvers; propyloctanoic acid prodrugs with improved pharmacokinetics for improving astrocyte function and treatment of neurodegenerative disease and their use in combination with other drugs)

IT 31080-41-8, 2-Propyloctanoic acid 185517-21-9,

(2R)-2-Propyloctanoic acid

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(propyloctanoic acid prodrugs with improved pharmacokinetics for improving astrocyte function and treatment of neurodegenerative disease and their use in combination with other drugs)

L4 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:25443 CAPLUS

DOCUMENT NUMBER: 144:266572

TITLE: Teratogenic effects mediated by inhibition of histone

deacetylases evidence from quant. structure activity

relationships of valproic acid derivs.

AUTHOR(S): Eikel, Daniel; Lampen, Alfonso; Nau, Heinz

CORPORATE SOURCE: Department of Food Toxicology and Chemical
Analysis-Food Toxicology, Center for Systemic
Neuroscience Hannover, Center for Food Science,

University of Veterinary Medicine Hannover, Hannover,

D-30173, Germany

SOURCE: Chemical Research in Toxicology (2006), 19(2), 272-278

CODEN: CRTOEC; ISSN: 0893-228X

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS

RECORD (20 CITINGS)

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB The widely used antiepileptic drug valproic acid (VPA), which is also used in migraine prophylaxis and the treatment of bipolar disorders, is also under trial as an anticancer agent. Despite its wide range of therapeutic applications, VPA also has two severe side effects: acute liver toxicity and teratogenicity. The mechanism of action for all these properties is unknown to date, but recently, it was shown that VPA is able to inhibit the enzyme class of histone deacetylases (HDACs), proteins with a fundamental impact on gene expression and therefore possible mol. targets of VPA-induced signaling cascades. The purpose of this study was to determine

if teratogenic side effects of VPA could be linked to its HDAC inhibition ability by studying a large set of structurally diverse derivs. based on the VPA core structure. We demonstrate that only VPA derivs. with a teratogenic potential in mice are able to induce a hyperacetylation in core histone H4 in teratocarcinoma F9 cells. We also demonstrate that this marker of functional HDAC inhibition occurs almost immediately (15 min) after exposure of F9 cells to VPA, whereas no influence on the HDAC protein levels (HDAC 2 and HDAC 3) could be detected even after 24 h of treatment. Further measurement of the IC50(HDAC) values of VPA derivs. in a human HDAC enzyme test system revealed an activity range from 10 to 10 000 μM ; in some derivs., HDAC inhibition ability was 40 times that of VPA. We also show a quant. correlation between the IC50(HDAC) and the teratogenic potential of VPA derivs., which clearly points toward HDACs as the formerly described teratogenic receptors of VPA-induced neural tube defects (NTDs).

IT Nervous system, disease

(neural tube defect; valproic acid derivs. quant. structure activity relationships and its teratogenic side effects mediated by inhibition of histone deacetylases)

IT 108-81-6 1575-72-0 2430-27-5, Valpromide 3274-28-0 3639-22-3 5662-78-2 31080-39-4 31080-41-8 33786-47-9 51577-99-2 59726-46-4 96017-59-3 106132-78-9 155899-34-6 155899-35-7 176638-49-6 176638-59-8 178447-22-8 675831-45-5 675831-46-6 RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(valproic acid derivs. quant. structure activity relationships and its teratogenic side effects mediated by inhibition of histone deacetylases)

L4 ANSWER 20 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1328560 CAPLUS

DOCUMENT NUMBER: 144:57565

TITLE: Capsule stable against mastication

INVENTOR(S): Okamoto, Ichiro; Miyamoto, Yuji; Nishimura, Hidekatsu

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 62 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | | | | | KIN | CIND DATE | | | APPLICATION NO. | | | | | | DATE | | |
|------------|-----|-------|--------|-----|-----|-----------|------|------|-----------------|-----------------|------|-------|-----|-----|----------|------|-----|
| WO 20 | 005 | 1204 |
90 | | A1 | A1 20051: | | 1222 | | WO 2005-JP11092 | | | | | 20050610 | | |
| V | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | ΒA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FΙ, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | KM, | KP, | KR, | KΖ, |
| | | LC, | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, |
| | | NG, | NΙ, | NO, | NΖ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, |
| | | SL, | SM, | SY, | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, |
| | | ZA, | ZM, | ZW | | | | | | | | | | | | | |
| F | RW: | BW, | GH, | GM, | ΚE, | LS, | MW, | MΖ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, |
| | | ΑZ, | BY, | KG, | KΖ, | MD, | RU, | ТJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, |
| | | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | IS, | ΙΤ, | LT, | LU, | MC, | NL, | PL, | PT, |
| | | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, |
| | | MR, | ΝE, | SN, | TD, | ΤG | | | | | | | | | | | |
| AU 20 | 005 | 2516. | 23 | | A1 | | 2005 | 1222 | | AU 2 | 005- | 2516. | 23 | | 2 | 0050 | 610 |
| CA 25 | 569 | 746 | | | A1 | | 2005 | 1222 | i | CA 2 | 005- | 2569 | 746 | | 2 | 0050 | 610 |
| EP 17 | 754 | 479 | | | A1 | | 2007 | 0221 | | EP 2 | 005- | 7512 | 13 | | 2 | 0050 | 610 |
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| | | IS, | ΙT, | LI, | LT, | LU, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR | | |

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CN 101001622 A 20070718 CN 2005-80027281 20050610
BR 2005012000 A 20080122 BR 2005-12000 20050610
MX 2006014396 A 20070312 MX 2006-14396 20061208
NO 2006005670 A 20070312 NO 2006-5670 20061208
ZA 2006010307 A 20080730 ZA 2006-10307 20061208
IN 2006CN04534 A 20070629 IN 2006-CN4534 20061211
US 20080057115 A1 20080306 US 2006-629178 20061211
KR 2007024722 A 20070302 KR 2007-700705 20070111
PRIORITY APPLN. INFO.:
                                                      JP 2004-174576
                                                                             A 20040611
                                                      JP 2005-122821 A 20050420 WO 2005-JP11092 W 20050610
OS.CITING REF COUNT:
                             1
                                     THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
                                      (2 CITINGS)
REFERENCE COUNT:
                                      THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
                                      RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
ΤТ
      Nerve, disease
      Nerve regeneration
          (soft capsules stable against mastication containing propyloctanoate for
         treatment of nerve disorders)
      185517-21-9
TΤ
      RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
      (Biological study); USES (Uses)
          (soft capsules stable against mastication containing propyloctanoate for
          treatment of nerve disorders)
     ANSWER 21 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:1196407 CAPLUS
DOCUMENT NUMBER:
                              143:459776
TITLE:
                             Preparation of crystal comprising
                              (2R)-2-propyloctanoic acid and amine
                              Hasegawa, Tomoyuki; Kawanaka, Yasufumi; Kasamatsu,
INVENTOR(S):
                              Eiji
PATENT ASSIGNEE(S):
                              Ono Pharmaceutical Co., Ltd., Japan
SOURCE:
                              PCT Int. Appl., 158 pp.
                              CODEN: PIXXD2
DOCUMENT TYPE:
                              Patent
LANGUAGE:
                              Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:
                     KIND DATE APPLICATION NO. DATE
      PATENT NO.
                             A1 20051110 WO 2005-JP8462 20050427
      WO 2005105722
           W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
                CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
                GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
                LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
                NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
                SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
                ZM, ZW
           RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MD, NE, SN, TD, TC
                MR, NE, SN, TD, TG
      EP 1741697
                                    20070110
                                                   EP 2005-739057
                               Α1
                                                                                  20050427
           R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
                IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
                                                      JP 2004-134655 A 20040428 WO 2005-JP8462 W 20050427
PRIORITY APPLN. INFO.:
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THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE COUNT:

5

Nervous system agents (reparation of crystalline (2R)-2-propyloctanoic acid amine salts as preventives, therapeutic agents, and/or symptom-suppressing agents for neurodegenerative diseases, nerve disorders, or diseases required for neuroregeneration) 185517-21-9P 807362-89-6P 807362-94-3P 807362-99-8P ΙT RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (reparation of crystalline (2R)-2-propyloctanoic acid amine salts as preventives, therapeutic agents, and/or symptom-suppressing agents for neurodegenerative diseases, nerve disorders, or diseases required for neuroregeneration) 548783-50-2P ΙT RL: PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (reparation of crystalline (2R)-2-propyloctanoic acid amine salts as preventives, therapeutic agents, and/or symptom-suppressing agents for neurodegenerative diseases, nerve disorders, or diseases required for neuroregeneration) ΙT 868587-88-6P 869109-74-0P 869109-77-3P 869109-78-4P 869109-79-5P 869109-80-8P 869109-81-9P 869109-82-0P 869109-83-1P 869109-84-2P 869109-85-3P 869109-87-5P 869109-88-6P 869109-89-7P 869109-91-1P 869109-93-3P 869109-92-2P 869109-94-4P 869109-95-5P 869109-97-7P 869109-98-8P 869110-00-9P 869109-99-9P 869110-01-0P RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (reparation of crystalline (2R)-2-propyloctanoic acid amine salts as preventives, therapeutic agents, and/or symptom-suppressing agents for neurodegenerative diseases, nerve disorders, or diseases required for neuroregeneration) ΙT 869109-75-1P 869109-76-2P 869109-86-4P 869109-96-6P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (reparation of crystalline (2R)-2-propyloctanoic acid amine salts as preventives, therapeutic agents, and/or symptom-suppressing agents for neurodegenerative diseases, nerve disorders, or diseases required for neuroregeneration) ANSWER 22 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN 2005:553303 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 143:109607 TITLE: Modulation of astrocytic activation by arundic acid (ONO-2506) mitigates detrimental effects of the apolipoprotein E4 isoform after permanent focal ischemia in apolipoprotein E knock-in mice Mori, Takashi; Town, Terrence; Tan, Jun; Tateishi, AUTHOR(S): Narito; Asano, Takao CORPORATE SOURCE: Institute of Medical Science, Saitama Medical Center/School, Saitama, Japan SOURCE: Journal of Cerebral Blood Flow & Metabolism (2005), 25(6), 748-762 CODEN: JCBMDN; ISSN: 0271-678X PUBLISHER: Nature Publishing Group

Nerve, disease

Nerve regeneration

TТ

DOCUMENT TYPE: Journal LANGUAGE: English

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(3 CITINGS)

REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AΒ Using homozygous human apolipoprotein E2 (apoE2) (2/2)-, apoE3 (3/3)-, or apoE4 (4/4)-knock-in (KI) mice, we have shown that delayed infarct expansion and reactive astrocytosis after permanent middle cerebral artery occlusion (pMCAO) were markedly exacerbated in 4/4-KI mice as compared with 2/2- or 3/3-KI mice. Here, we probed the putative causal relationship between enhanced astrocytic activation and exacerbation of brain damage in 4/4-KI mice using arundic acid (ONO-2506, Ono Pharmaceutical Co. Ltd), which is known to oppose astrocytic activation through its inhibitory action on S100B synthesis. In all of the KI mice, administration of arundic acid (10 mg/kg day, i.p., started immediately after pMCAO) induced significant amelioration of brain damage at 5 days after pMCAO in terms of infarct vols. (results expressed as the mean infarct volume (mm3) \pm 1 s.d. in 2/2-, 3/3-, or 4/4-KI mice in the vehicle groups: 16 \pm 2, 15 \pm 2, or 22 \pm 2; in the arundic acid groups: 11 ± 2 (P < 0.001), 11 ± 2 (P < 0.001), or 12 ± 2 (P < 0.001), as compared with the vehicle groups), neurol. deficits, and S100/glial fibrillary acidic protein burden in the peri-infarct area. beneficial effects of arundic acid were most pronounced in $4/4-{\rm KI}$ mice, wherein delayed infarct expansion together with deterioration of neurol. deficits was almost completely mitigated. The above results support the notion that the apoE4 isoform exacerbates brain damage during the subacute phase of pMCAO through augmentation of astrocytic activation. Thus, pharmacol. modulation of astrocytic activation may confer a novel therapeutic strategy for ischemic brain damage, particularly in APOE $\epsilon 4$ carriers.

IT Calcium-binding proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study) (S-100B; arundic acid decreased immunoreactivity and tissue level of S100 protein burden in astrocytes of peri-infarct area after permanent middle cerebral artery occlusion in apolipoprotein E isoform knock-in mouse)

IT Astrocyte

(arundic acid markedly attenuated magnitude of reactive astrocytosis in brain after permanent middle cerebral artery occlusion in apolipoprotein E isoform knock-in mouse)

IT Glial fibrillary acidic protein

RL: BSU (Biological study, unclassified); BIOL (Biological study) (arundic acid significantly attenuated glial fibrillary acidic protein burden after permanent middle cerebral artery occlusion in apolipoprotein E isoform knock-in mouse)

IT Brain

(arundic acid significantly reduced infarct volume and area and thus ameliorated brain damage after permanent middle cerebral artery occlusion in apolipoprotein E isoform knock-in mouse)

IT Astrocyte

(astrocytosis; arundic acid markedly attenuated magnitude of reactive astrocytosis in brain after permanent middle cerebral artery occlusion in apolipoprotein E isoform knock-in mouse)

IT Ischemia

(cerebral; arundic acid reduced infarct volume, area, improved neurol. deficits, decreased immunoreactivity, tissue level of S100 and GFAP protein, attenuated astrocytic activation after permanent focal ischemia in apo E isoform knock-in mouse)

IT Brain, disease

(infarction; arundic acid significantly reduced infarct volume and area and thus ameliorated brain damage after permanent middle

cerebral artery occlusion in apolipoprotein E isoform knock-in mouse)

IT 185517-21-9, Arundic acid

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(arundic acid reduced infarct volume, area, improved neurol. deficits, decreased immunoreactivity and tissue level of S100 and GFAP protein burden, attenuated astrocytic activation after pMCAO in apolipoprotein E isoform knock-in mouse)

L4 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:371949 CAPLUS

DOCUMENT NUMBER: 143:108756

TITLE: Arundic acid (ONO-2506) ameliorates delayed ischemic

brain damage by preventing astrocytic overproduction

of S100B

AUTHOR(S): Asano, T.; Mori, T.; Shimoda, T.; Shinagawa, R.;

Satoh, S.; Yada, N.; Katsumata, S.; Matsuda, S.;

Kagamiishi, Y.; Tateishi, N.

CORPORATE SOURCE: Department of Neurosurgery, Saitama Medical Center/

School, Saitama, 350-8550, Japan

SOURCE: Current Drug Targets: CNS & Neurological Disorders

(2005), 4(2), 127-142

CODEN: CDTCCC; ISSN: 1568-007X Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

OS.CITING REF COUNT: 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS

RECORD (14 CITINGS)

REFERENCE COUNT: 238 THERE ARE 238 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

AB A review. After focal cerebral ischemia, the infarct volume increases rapidly within acute infarct expansion (initial 12 to 24 h) and continues slowly during delayed infarct expansion (25 to 168 h). While acute infarct expansion represents progressive necrosis within the ischemic core, delayed infarct expansion starts as disseminated apoptotic cell death in a narrow rim surrounding the infarct border, which gradually coalesces to form a larger infarct. Discovery of a distinct correlation between reactive astrogliosis along the infarct border and delayed infarct expansion in the rodent ischemia model led us to investigate the possible causal relation between the two events. Specifically, the calcium binding protein S100B exerts detrimental effects on cell survival through activation of various intracellular signaling pathways, resulting in altered protein expression. Arundic acid [(R)-(-)-2-propyloctanoic acid,ONO-2506] is a novel agent that inhibits \$100B synthesis in cultured astrocytes. In the rodent ischemia model, this agent was shown to inhibit both the astrocytic overexpression of S100B and the subsequent activation of signaling pathways in the peri-infarct area. Concurrently, delayed infarct expansion was prevented, and neurol. deficits were promptly ameliorated. The results of subsequent studies suggest that the efficacy of arundic acid is mediated by restoring the activity of astroglial glutamate transporters via enhanced genetic expression.

IT Injury Ischemia

PUBLISHER:

(cerebral; arundic acid ameliorates delayed ischemic brain

damage by preventing astrocytic overprodn. of S100B)

IT Brain, disease

(infarction; arundic acid ameliorates delayed ischemic brain damage by preventing astrocytic overprodn. of \$100B)

IT 185517-21-9, Arundic acid

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(arundic acid ameliorates delayed ischemic brain damage by preventing astrocytic overprodn. of S100B)

L4 ANSWER 24 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:316347 CAPLUS

DOCUMENT NUMBER: 142:349089

TITLE: Method for preventing and/or treating

neurodegenerative diseases

INVENTOR(S): Funakoshi, Yosuke; Mizushima, Ken; Takakuwa, Toshio

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PATENT NO. | | | | | KIN | D
_ | DATE | | | APPLICATION NO. | | | | | D. | ATE | |
|-----------|---|-------|-------|--------|------|-------|-------------|--------|------|-----|-----------------|------|------|-------|------|------------------------|-------|---------|
| | WO | 2005 | 0325 | 37 | | A1 | A1 20050414 | | | | WO 2 | 004- | JP14 | 893 | | 2 | 0041 | 001 |
| | | W: | | | | | | AU, | | | | | | | | | CA, | CH, |
| | | | | | | | | DE, | | | | | | | | | | |
| | | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KΖ, | LC, |
| | | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, |
| | | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, |
| | | | ΤJ, | TM, | TN, | TR, | ΤΤ, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW |
| | | RW: | BW, | GH, | GM, | KE, | LS, | MW, | ΜZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, |
| | | | ΑZ, | BY, | KG, | KΖ, | MD, | RU, | ТJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, |
| | | | EE, | ES, | FΙ, | FR, | GB, | GR, | HU, | IE, | ΙΤ, | LU, | MC, | NL, | PL, | PT, | RO, | SE, |
| | | | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML_{\prime} | MR, | NE, |
| | | | | TD, | ΤG | | | | | | | | | | | | | |
| | EP | 1667 | - | | | A1 | | 2006 | | | | | | | | | 0041 | |
| | | R: | | | | | | ES, | | | | | | | NL, | SE, | MC, | PT, |
| | | 0007 | | | | | | TR, | | | | | | | | 0 | 0041 | 0.01 |
| | | 2007 | | | | | | | | | | | | | | | | |
| DDTOI | | 2007 | | | | AI | | 2007 | 0222 | | | | | | | | | |
| PRIO | <111 | APP | LIN. | INFO | .: | | | | | | US 20
JP 20 | | | | | | | |
| | | | | | | | | | | | WO 2 | 004- | TD1/ | 003 | | A. Z | 0040 | 011 |
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| 112 | | ente | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | thereof. Since the neurodegenerative disease treating agent of the invention comprising (2R)-2-propyloctanoic acid or a salt thereof, | | | | | | | | | | | | | | | | | |
| | characterized in that a dosage exceeding 100 mg per dose is parenterally | | | | | | | | | | | | | | | | | |
| | | ninis | | | | | | | | | | | | | | | | |
| | | nibit | | | | | | | | | | | | | • | | | |
| | , i | t is | use | ful | for | the t | trea | tmen | t of | neu | rode | gene | rati | ve d | isea | ses . | incl | uding |

regeneration IT Brain, disease

ST

(infarction; method for prevention and treatment of neurodegenerative diseases)

cerebral infarction. In addition, it is also useful as a

propyloctanoic acid neurodegenerative disease therapy neural

neural regeneration agent after transplantation.

IT Regeneration, animal

(neural; method for prevention and treatment of neurodegenerative diseases) ΤТ Brain, disease (stroke; method for prevention and treatment of neurodegenerative diseases) 185517-21-9 IΤ RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (method for prevention and treatment of neurodegenerative diseases) ANSWER 25 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:316345 CAPLUS DOCUMENT NUMBER: 142:379379 Nerve regeneration promoters containing TITLE: fatty acid compounds INVENTOR(S): Tateishi, Narito; Yamamoto, Junki; Kawaharada, Soichi; Akiyama, Tsutomu; Hoshikawa, Masamitsu Ono Pharmaceutical Co., Ltd., Japan PATENT ASSIGNEE(S): PCT Int. Appl., 61 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent Japanese LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. _____ ____ _____ WO 2005032535 A1 20050414 WO 2004-JP14879 20041001 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG EP 1685832 Α1 20060802 EP 2004-792173 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK 20070222 US 20070043114 A1 US 2006-574479 20061005 PRIORITY APPLN. INFO.: JP 2003-345123 A 20031003 JP 2004-162909 A 20040601 WO 2004-JP14879 W 20041001 MARPAT 142:379379 OTHER SOURCE(S): THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD OS.CITING REF COUNT: 1 (2 CITINGS) THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 16 RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT Nerve regeneration promoters containing fatty acid compounds ΤI Disclosed are nerve regeneration promoters containing fatty acid compds. especially compds. R2C(R3)(R4)COR1 [R1 hydroxy; R2, R3 = H, C1, C3-10] AΒ alkyl, C3-10 alkenyl, etc.; R4 = (oxidized) C2-3 alkyl], salts thereof or prodrugs of the same. The compds. inhibit nerve cell death and promote the formation of new nerve cells and nerve cell regeneration and also promote the repair and regeneration of nerve tissues and functions through neurite extension, because of serving as a stem cell (nerve stem cell, embryonic stem cell, bone marrow cell, etc.) proliferation/differentiation promoter, a nerve cell precursor proliferation/differentiation promoter, a neurotrophic factor activity enhancer, a neurotrophic factor-like substance or a

neurodegeneration inhibitor. Furthermore, these compds. are

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useful in preparing cells for transplantation (nerve stem cells, nerve cell
     precursors, nerve cells, etc.) from a brain tissue, bone marrow, embryonic
     stem cells, etc. At the same time, these compds. promote the take,
     proliferation, differentiation and function expression of transplanted
     cells, which makes them useful as preventives and/or remedies for
     neurodegenerative diseases. The effect of (2R)-2-propyloctanoic acid on
     nerve stem cell differentiation in rats was examined
ST
     fatty acid compd nerve regeneration promoter; propyloctanoic
     acid nerve regeneration promoter
     Fatty acids, biological studies
ΙT
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (branched; nerve regeneration promoters containing fatty acid
        compds.)
ΙT
    Nerve
        (central; nerve regeneration promoters containing fatty acid
        compds.)
ΙT
     Prosthetic materials and Prosthetics
        (implants; nerve regeneration promoters containing fatty acid
        compds.)
ΤT
     Drug delivery systems
        (injections; nerve regeneration promoters containing fatty acid
        compds.)
ΙT
    Nerve
        (motor; nerve regeneration promoters containing fatty acid
        compds.)
ΙT
    Animal tissue culture
     Astrocyte
     Brain
     Cell differentiation
     Cell proliferation
    Mesenchyme
    Nerve regeneration
     Nerve regeneration
     Neuroglia
     Stem cell
        (nerve regeneration promoters containing fatty acid compds.)
ΙT
    Neurotrophic factors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (nerve regeneration promoters containing fatty acid compds.)
ΙT
     Fatty acids, biological studies
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (nerve regeneration promoters containing fatty acid compds.)
ΤT
     Nerve
        (peripheral; nerve regeneration promoters containing fatty acid
        compds.)
ΙT
     Nerve
        (sensory; nerve regeneration promoters containing fatty acid
        compds.)
ΙT
        (spinal; nerve regeneration promoters containing fatty acid
        compds.)
ΤТ
     Neuron
        (stem cells, precursor cells; nerve regeneration promoters
        containing fatty acid compds.)
ΙT
     Bone marrow
     Embryo, animal
        (stem cells; nerve regeneration promoters containing fatty acid
        compds.)
ΤТ
    Cell
        (stromal, bone marrow; nerve regeneration promoters containing
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fatty acid compds.) Fatty acids, biological studies ΤТ RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (unsatd.; nerve regeneration promoters containing fatty acid compds.) ΙT 99-66-1, 2-Propylpentanoic acid 31080-41-8, 2-Propyloctanoic 185517-21-9, (2R)-2-Propyloctanoic acid807363-10-6 824961-07-1 824961-08-2 824961-09-3 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nerve regeneration promoters containing fatty acid compds.) ANSWER 26 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:65515 CAPLUS DOCUMENT NUMBER: 143:306237 Asymmetric approach to (R)-(-)-2-propyloctanoic acid TITLE: Roos, Gregory H. P.; Al Kalbani, Rayan; Al Ajmi, Huda AUTHOR(S): CORPORATE SOURCE: Chemistry Department, Sultan Qaboos University, Al Khoud, 123, Oman SOURCE: Journal of Saudi Chemical Society (2004), 8(3), 485 - 489CODEN: JSCSFO; ISSN: 1319-6103 PUBLISHER: Saudi Chemical Society DOCUMENT TYPE: Journal Enalish LANGUAGE: OTHER SOURCE(S): CASREACT 143:306237 17 REFERENCE COUNT: THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT In an attempt to improve crystallinity of intermediates, a chiral AB imidazolidin-2-one auxiliary was tested in the standard diastereoselective allylation approach to the formal synthesis of (R)-2-propyloctanoic acid, which has been reported as a potential therapeutic agent for stroke and Alzheimer's disease. Allyl intermediate I was only semi-crystalline, while the corresponding propargyl intermediate defied crystallization Hydrogenation of I and cleavage of the auxiliary gave the title compound in only 85% optical purity, implying that some racemization had occurred during the hydrogenation and hydrolysis steps. ΙT 185517-21-9P, (R)-(-)-2-Propyloctanoic acidRL: SPN (Synthetic preparation); PREP (Preparation) (stereoselective preparation of (R)-propyloctanoic acid via fusion of (+)-ephedrine with urea followed by asym. alkylation with allyl bromide or propargyl bromide, hydrogenation, and hydrolysis in the attempt to prepare crystalline intermediates) ANSWER 27 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN 2004:765918 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 142:168553 TITLE: Arundic Acid: Astrocyte-modulating agent treatment of stroke treatment of neurodegeneration AUTHOR(S): Sorbera, L. A.; Castaner, J.; Castaner, R. M. Prous Science, Barcelona, 08080, Spain CORPORATE SOURCE: SOURCE: Drugs of the Future (2004), 29(5), 441-448 CODEN: DRFUD4; ISSN: 0377-8282 PUBLISHER: Prous Science DOCUMENT TYPE: Journal; General Review English LANGUAGE: OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS) REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS

- TI Arundic Acid: Astrocyte-modulating agent treatment of stroke treatment of neurodegeneration
- A review. According to the World Health Organization, stroke is AB the leading cause of death worldwide, accounting for 5 million deaths per Oxygen deprivation due to stroke leads to rapid nerve cell death and dysfunction of the body part controlled by the affected nerve cells. Thus, stroke is also responsible for serious long-term disability (e.g., paralysis, cognitive deficits, dementia, dizziness, vertigo, impaired vision, language deficits, emotional difficulties, pain). Although there have been improvements in recent years in the treatment of stroke, the need for novel therapies to prevent and treat stroke remains a research priority. One novel agent to emerge is Ono-2506 (arundic acid), which modulates astrocyte activation by inhibiting the enhanced astrocytic synthesis of S-100 β , responsible for inducing neuronal death. Ono-2506 does not affect thrombi or blood vessels and therefor does not pose a risk for hemorrhage. It has shown efficacy in preventing expansion of cerebral infarction by improving astrocyte function and may be effective even when administered hours after ischemic stroke onset. Ono-2506 is undergoing phase II development for the treatment of acute ischemic stroke, as well as clin. development in other neurodegenerative diseases including amytrophic lateral sclerosis, Alzheimer's disease and Parkinson's disease.
- ST review arundic acid neurodegenerative disease ischemia brain stroke astrocyte
- IT Hemorrhage

(Onol-2506 does not affect thrombi or blood vessels and therefor does not pose risk for hemorrhage and is in phase II trial to treat acute ischemic stroke and other neurodegenerative disease in humans)

IT Alzheimer's disease

(Onol-2506 is effective in preventing cerebral infarction expansion by improving astrocyte function, may be effective when administered hours after ischemic stroke onset and is in phase II trial to treat Alzheimer's disease in patient)

IT Parkinson's disease

(Onol-2506 is effective in preventing cerebral infarction expansion by improving astrocyte function, may be effective when administered hours after ischemic stroke onset and is in phase II trial to treat Parkinson's disease in patient)

IT Human

(Onol-2506 is effective in preventing cerebral infarction expansion by improving astrocyte function, may be effective when administered hours after ischemic stroke onset and is in phase II trial to treat neurodegenerative disease in humans)

IT Astrocyte

Brain

(Onol-2506 is effective in preventing cerebral infarction expansion by improving astrocyte function, may be effective when administered hours after ischemic stroke onset and is in phase II trial to treat neurodegenerative disease in patient)

IT Nervous system, disease

(amyotrophic lateral sclerosis; Onol-2506 is effective in preventing cerebral infarction expansion by improving astrocyte function, may be effective when administered hours after ischemic stroke onset and is in phase II trial to treat amyotrophic lateral sclerosis patient)

IT Nervous system, disease

(degeneration; Onol-2506 is effective in preventing cerebral infarction expansion by improving astrocyte function, may be effective when administered hours after ischemic stroke onset

and is in phase II trial to treat neurodegenerative disease in patient) ΤТ Brain, disease

(stroke; Onol-2506 is effective in preventing

cerebral infarction expansion by improving astrocyte

function, may be effective when administered hours after ischemic

stroke onset and is in phase II trial to treat

neurodegenerative disease in patient)

185517-21-9P, Ono-2506 ΙT

> RL: PAC (Pharmacological activity); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(Onol-2506 is effective in preventing cerebral

infarction expansion by improving astrocyte function, may be effective when administered hours after ischemic stroke onset

and is in phase II trial to treat neurodegenerative disease in patient)

ANSWER 28 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:407030 CAPLUS

DOCUMENT NUMBER: 141:1101

Attenuation of a delayed increase in the extracellular TITLE:

glutamate level in the peri-infarct area following

focal cerebral ischemia by a novel agent

ONO-2506

Mori, Takashi; Tateishi, Narito; Kagamiishi, AUTHOR(S):

Yoshifumi; Shimoda, Taiji; Satoh, Souichi; Ono,

Sakiko; Katsube, Nobuo; Asano, Takao

CORPORATE SOURCE: Institute of Laboratory Animal Science, Saitama

Medical Center/School, Kawagoe, Saitama, 350-8550,

Japan

SOURCE: Neurochemistry International (2004), 45(2-3), 381-387

CODEN: NEUIDS; ISSN: 0197-0186

Elsevier Science B.V. PUBLISHER:

DOCUMENT TYPE: Journal English LANGUAGE:

OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS

RECORD (13 CITINGS)

REFERENCE COUNT: THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS 30

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Attenuation of a delayed increase in the extracellular glutamate level in the peri-infarct area following focal cerebral ischemia by a

novel agent ONO-2506

A novel agent, ONO-2506 [(R)-(-)-2-propyloctanoic acid, ONO Pharmaceutical AB Co. Ltd.] was previously shown to mitigate delayed infarct expansion through inhibition of the enhanced production of S-100 β , while inducing a prompt symptomatic improvement that attained a significant level as early as 24 h after drug administration. To elucidate the mechanism underlying the prompt symptomatic improvement, the present study aimed to examine whether ONO-2506 modulates the level of extracellular glutamate ([Glu]e) in the rat subjected to transient middle cerebral artery occlusion (tMCAO). In this model, it had been shown that ONO-2506 reduces the infarct volume, improves the neurol. deficits, and enhances the mRNA expression of glial glutamate transporters (GLT-1 and GLAST). The [Glu]e levels in the ischemic cortices were continuously measured using intracerebral microdialysis. The alterations in the [Glu]e levels in the sham-operated and tMCAO-operated groups with or without drug administration were compared. In the tMCAO groups, the [Glu]e level increased during tMCAO to a similar extent, returned to normal on reperfusion, and increased again around 5 h. In the saline-treated group, however, the [Glu]e level further increased from 15 h on to reach about 280% of the normal level at 24 h. This secondary increase in the [Glu]elevel in the late phase of reperfusion was prevented by ONO-2506. The intracerebral infusion of glutamate transporter inhibitor,

l-trans-pyrrolidine-2,4-dicarboxylic acid, at 24 h after tMCAO induced an increase in the [Glu]e level, which was marked in both the sham-operated and ONO-2506-treated groups, but much less pronounced in the saline-treated group. The above results suggest that functional modulation of activated astrocytes by pharmacol. agents like ONO-2506 may inhibit the secondary rise of [Glu]e level in the late phase of reperfusion, leading to amelioration of delayed infarct expansion and neurol. deficits.

- ST ONO 2506 focal cerebral ischemia treatment extracellular glutamate; brain infarction treatment ONO 2506 extracellular glutamate
- IT Neuroglia

(attenuation of a delayed increase in extracellular glutamate level in peri-infarct area following focal cerebral ischemia by a novel agent ONO-2506 in relation to role or glial glutamate transporters)

IT Ischemia

(cerebral focal; attenuation of a delayed increase in extracellular glutamate level in peri-infarct area following focal cerebral ischemia by a novel agent ONO-2506 in relation to role or glial glutamate transporters)

- IT Transport proteins
 - RL: BSU (Biological study, unclassified); BIOL (Biological study) (glutamate transporter SLC1A2; attenuation of a delayed increase in extracellular glutamate level in peri-infarct area following focal cerebral ischemia by a novel agent ONO-2506 in relation to role or glial glutamate transporters)
- IT Transport proteins
 - RL: BSU (Biological study, unclassified); BIOL (Biological study) (glutamate transporter, GLAST; attenuation of a delayed increase in extracellular glutamate level in peri-infarct area following focal cerebral ischemia by a novel agent ONO-2506 in relation to role or glial glutamate transporters)
- IT Brain, disease

(infarction; attenuation of a delayed increase in extracellular glutamate level in peri-infarct area following focal cerebral ischemia by a novel agent ONO-2506 in relation to role or glial glutamate transporters)

- IT Brain, disease
 - (ischemia, focal; attenuation of a delayed increase in extracellular glutamate level in peri-infarct area following focal cerebral ischemia by a novel agent ONO-2506 in relation to role or glial glutamate transporters)
- IT Cytoprotective agents

Nervous system agents

(neuroprotective agents; attenuation of a delayed increase in extracellular glutamate level in peri-infarct area following focal cerebral ischemia by a novel agent ONO-2506 in relation to role or glial glutamate transporters)

- IT 56-86-0, L-Glutamic acid, biological studies
 - RL: BSU (Biological study, unclassified); BIOL (Biological study) (attenuation of a delayed increase in extracellular glutamate level in peri-infarct area following focal cerebral ischemia by a novel agent ONO-2506 in relation to role or glial glutamate transporters)
- IT 185517-21-9, ONO-2506

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(attenuation of a delayed increase in extracellular glutamate level

(attenuation of a delayed increase in extracellular glutamate level in peri-infarct area following focal cerebral ischemia by a novel agent ONO-2506 in relation to role or glial glutamate transporters)

ANSWER 29 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:739273 CAPLUS

DOCUMENT NUMBER: 140:122721

Functional modulation of astrocytes by a novel agent TITLE:

ONO-2506 mitigates delayed infarct expansion with a

wide therapeutic time window, inducing prompt neurological recovery through reduction of the

extracellular level of glutamate

AUTHOR(S): Asano, Takao; Tateishi, Narito N.; Matsui, Tohru;

Mori, Takashi; Kagamiishi, Yoshifumi; Sato, Souichi;

Katsube, Nobuo

Department of Neurosurgery, Saitama Medical CORPORATE SOURCE:

Center/School, Saitama, 350-8550, Japan

International Congress Series (2003), 1252 (Molecular SOURCE:

Mechanism and Epochal Therapeutics of Ischemic Stroke

and Dementia), 147-151

CODEN: EXMDA4; ISSN: 0531-5131

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ΙT Ischemia

(transient focal cerebral; effect of ONO-2506 on astrocytes

and extracellular glutamate in focal ischemia)

185517-21-9, ONO-2506 TT

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)

(effect of ONO-2506 on astrocytes and extracellular glutamate in focal ischemia)

ANSWER 30 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:700823 CAPLUS

DOCUMENT NUMBER: 139:270134 TITLE: ONO-2506 (Ono) AUTHOR(S): de Paulis, Tomas

CORPORATE SOURCE: Psychiatry Department, Vanderbilt University School of

Medicine, Nashville, TN, 37232, USA

SOURCE: Current Opinion in Investigational Drugs (Thomson

Current Drugs) (2003), 4(7), 863-867

CODEN: COIDAZ; ISSN: 1472-4472

PUBLISHER: Thomson Current Drugs DOCUMENT TYPE: Journal; General Review

English LANGUAGE:

OS.CITING REF COUNT: THERE ARE 11 CAPLUS RECORDS THAT CITE THIS 11

RECORD (11 CITINGS)

THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 38

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

A review. ONO-2506 is an enantiomeric, three carbon atom homolog of valproic acid under development by ONO Pharmaceutical for the potential AΒ treatment of stroke, as well as Alzheimer's and Parkinson's

diseases. The injectable formulation (Proglia) is undergoing phase II

trials in the US and Japan for acute-phase cerebral

infarction, and the oral formulation (Cereact) is in phase I trials in the UK for Alzheimer's disease (AD) and Parkinson's disease (PD). Japanese and European phase I trials for AD, PD and amyotrophic lateral sclerosis (ALS) had commenced by Mar. 2002 and phase II trials for ALS are underway in Europe.

review neuroprotectant ONO2506 Parkinson Alzheimer disease ALS ST stroke

Alzheimer's disease ΤТ

Anti-Alzheimer's agents Anti-inflammatory agents Antiparkinsonian agents

Human

Parkinson's disease

(ONO-2506 for treatment of patients with Alzheimer's disease, cerebral infarction, cerebrovascular ischemia, motor neuron disease, neurol. disease, and Parkinson's disease)

IT Nervous system, disease

(amyotrophic lateral sclerosis; ONO-2506 for treatment of patients with Alzheimer's disease, cerebral infarction, cerebrovascular ischemia, motor neuron disease, neurol. disease, and

Parkinson's disease)

IT Ischemia

(cerebral; ONO-2506 for treatment of patients with Alzheimer's disease, cerebral infarction, cerebrovascular ischemia, motor neuron disease, neurol. disease, and Parkinson's disease)

IT Brain, disease

(infarction; ONO-2506 for treatment of patients with Alzheimer's disease, cerebral infarction, cerebrovascular ischemia, motor neuron disease, neurol. disease, and Parkinson's disease)

IT Brain, disease

(ischemia; ONO-2506 for treatment of patients with Alzheimer's disease, cerebral infarction, cerebrovascular ischemia, motor neuron disease, neurol. disease, and Parkinson's disease)

IT Cytoprotective agents

Nervous system agents

(neuroprotective agents; ONO-2506 for treatment of patients with Alzheimer's disease, cerebral infarction, cerebrovascular ischemia, motor neuron disease, neurol. disease, and Parkinson's disease)

IT Brain, disease

(stroke; ONO-2506 for treatment of patients with Alzheimer's disease, cerebral infarction, cerebrovascular ischemia, motor neuron disease, neurol. disease, and Parkinson's disease)

IT 185517-21-9P, ONO 2506

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ONO-2506 for treatment of patients with Alzheimer's disease, cerebral infarction, cerebrovascular ischemia, motor neuron disease, neurol. disease, and Parkinson's disease)

L4 ANSWER 31 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:110346 CAPLUS

DOCUMENT NUMBER: 138:289331

TITLE: Process Development of ONO-2506: A Therapeutic Agent

for Stroke and Alzheimer's Disease

AUTHOR(S): Hasegawa, Tomoyuki; Kawanaka, Yasufumi; Kasamatsu,

Eiji; Iguchi, Yoichi; Yonekawa, Yoshihira; Okamoto, Masaki; Ohta, Chiaki; Hashimoto, Shinsuke; Ohuchida,

Shuichi

CORPORATE SOURCE: Chemical Process Research Laboratories, Fukui Research

Institute, Ono Pharmaceutical Co. Ltd., Yamagishi,

Mikuni, Sakai, Fukui, 913-8538, Japan

SOURCE: Organic Process Research & Development (2003), 7(2),

168-171

CODEN: OPRDFK; ISSN: 1083-6160

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:289331

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD

(7 CITINGS)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Process Development of ONO-2506: A Therapeutic Agent for Stroke

and Alzheimer's Disease

IT Chiral auxiliary Recrystallization

(in process development of ONO-2506: a therapeutic agent for

stroke and Alzheimer's disease)

IT Alzheimer's disease

Drugs

(process development of ONO-2506: a therapeutic agent for stroke and Alzheimer's disease)

IT Chemical engineering design

(scale-up; process development of ONO-2506: a therapeutic agent for stroke and Alzheimer's disease)

IT Allylation

(stereoselective; in process development of ONO-2506: a therapeutic agent for stroke and Alzheimer's disease)

IT Brain, disease

(stroke; process development of ONO-2506: a therapeutic agent for stroke and Alzheimer's disease)

IT 141341-55-1P 213914-68-2P 213914-70-6P 287731-56-0P 506436-72-2P 506436-73-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(in process development of ONO-2506: a therapeutic agent for stroke and Alzheimer's disease)

IT 106-95-6, Allyl bromide, reactions 111-64-8, Octanoyl chloride 7757-83-7, Sodium sulfite 94594-90-8, (1S)-(-)-10, 2-Camphorsultam RL: RCT (Reactant); RACT (Reactant or reagent)

(in process development of ONO-2506: a therapeutic agent for stroke and Alzheimer's disease)

IT 185517-21-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(process development of ONO-2506: a therapeutic agent for stroke and Alzheimer's disease) $\,$

L4 ANSWER 32 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:76651 CAPLUS

DOCUMENT NUMBER: 138:131143

TITLE: Remedies for brain ischemic diseases

INVENTOR(S): Honjo, Kaneyoshi; Tateishi, Narito; Katsube, Nobuo

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND DATE | E APPLIC | CATION NO. | DATE | | | |
|---------------|----------------|-----------------|-----------------|-------------|--|--|--|
| | | | | | | | |
| WO 2003007992 | A1 2003 | 30130 WO 200 |)2-JP7212 | 20020716 | | | |
| W: AE, AG, A | , AM, AT, AU, | , AZ, BA, BB, E | BG, BR, BY, BZ, | CA, CH, CN, | | | |
| CO, CR, C | J, CZ, DE, DK, | , DM, DZ, EC, E | E, ES, FI, GB, | GD, GE, GH, | | | |

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                                         JP 2003-513597
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                                20090422
                                            EP 2009-152065
                                                                   20020716
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             LI, LU, MC, NL, PT, SE, SK, TR, AL, LT, LV, MK, RO, SI
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PRIORITY APPLN. INFO.:
                                            JP 2001-217755
                                                                A 20010718
                                            EP 2002-746090
                                                                A3 20020716
                                            WO 2002-JP7212
                                                                W 20020716
                                            US 2004-483629
                                                                A3 20040114
                                            KR 2004-700620
                                                                A3 20040115
                        MARPAT 138:131143
OTHER SOURCE(S):
                               THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD
OS.CITING REF COUNT:
                         4
                               (11 CITINGS)
REFERENCE COUNT:
                         8
                               THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
ΤТ
    Hemorrhage
     Ischemia
        (cerebral; neuroprotectants and thrombolytics as remedies for
        brain ischemic diseases)
IT
     Brain, disease
        (infarction; neuroprotectants and thrombolytics as remedies
        for brain ischemic diseases)
     139639-23-9, Tissue plasminogen activator 185517-21-9
     185517-21-9D, salts and hydrates
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (neuroprotectants and thrombolytics as remedies for brain ischemic
       diseases)
    ANSWER 33 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN
                         2002:520052 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         138:66447
TITLE:
                         Astrocytic activation and delayed infarct expansion
                         after permanent focal ischemia in rats. Part II:
                         Suppression of astrocytic activation by a novel agent
                         (R)-(-)-2-propyloctanoic acid (ONO-2506) leads to
                         mitigation of delayed infarct expansion and early
                         improvement of neurologic deficits
                         Tateishi, Narito; Mori, Takashi; Kagamiishi,
AUTHOR(S):
                         Yoshifumi; Satoh, Souichi; Katsube, Nobuo; Morikawa,
                         Eiharu; Morimoto, Tadashi; Matsui, Toru; Asano, Takao
CORPORATE SOURCE:
                         Minase Research Institute, Ono Pharmaceutical Co.
                         Ltd., Osaka, Japan
                         Journal of Cerebral Blood Flow and Metabolism (2002),
SOURCE:
                         22(6), 723-734
                        CODEN: JCBMDN; ISSN: 0271-678X
PUBLISHER:
                        Lippincott Williams & Wilkins
```

DOCUMENT TYPE: Journal LANGUAGE: English

OS.CITING REF COUNT: 53 THERE ARE 53 CAPLUS RECORDS THAT CITE THIS

RECORD (53 CITINGS)

REFERENCE COUNT: 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AΒ A novel agent, (R)-(-)-2-propyloctanoic acid (ONO-2506), has a unique property in that it modulates functions of activated cultured astrocytes, including pronounced inhibition of S-100 β synthesis. The present study examined whether administration of this agent would mitigate the delayed expansion of infarct volume and the neurol. deficits after permanent middle cerebral artery occlusion (pMCAO) in rats. Daily i.v. administration of ONO 2506 (10 mg/kg) abolished the delayed infarct expansion between 24 and 168 h after pMCAO, whereas the acute infarct expansion until 24 h was unaffected. The agent significantly reduced the expression of S-100 β and glial fibrillary acidic protein in the activated astrocytes and the number of terminal deoxynucleotidyl ${\tt transferase-mediated~2'-deoxyuridine~5'-triphosphatebiotin~nic\bar{k}~end}$ labeling-pos. cells in the periinfarct area. The neurol. deficits were significantly improved, compared with the vehicle-treated groups, as early as 24 h after the initial administration of ONO-2506. The agent had a wide therapeutic time window of 0 to 48 h after pMCAO. These results indicate that because of the pharmacol. modulation of astrocytic activation induced by ONO 2506, symptoms can regress whereas delayed expansion of the lesion is arrested. Pharmacol. modulation of astrocytic activation may confer a novel therapeutic strategy against stroke

ST ONO 2506 astrocytic activation brain infarction focal ischemia

IT Ischemia

(cerebral focal; suppression of astrocytic activation by ONO 2506 leads to mitigation of delayed infarct expansion and early improvement of neurol. deficits)

IT Brain, disease

(infarction; suppression of astrocytic activation by ONO 2506 leads to mitigation of delayed infarct expansion and early improvement of neurol. deficits)

IT Brain, disease

(stroke; suppression of astrocytic activation by ONO 2506 leads to mitigation of delayed infarct expansion and early improvement of neurol. deficits)

IT 185517-21-9

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(suppression of astrocytic activation by ONO 2506 leads to mitigation of delayed infarct expansion and early improvement of neurol. deficits)

L4 ANSWER 34 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:372897 CAPLUS

DOCUMENT NUMBER: 122:160096

ORIGINAL REFERENCE NO.: 122:29501a,29504a

TITLE: Preparation of valproate analogs as neuroprotectants INVENTOR(S): Ohuchida, Shuichi; Kishimoto, Kazuo; Tateishi, Narito;

Ohno, Hiroyuki

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 70 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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EP 632008 A1 19950104 EP 1994-108330 19940530 EP 632008 B1 19980204
EP 632008

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, AT 163006

ES 2113574

CA 2124784

CA 2124784

CA 2124784

CA 2124786

CA 119980215

CA 1994-2124784

CA 2124786

CA 2124786

CA 2124786

CA 2124786

CA 2124786

CA 2124786

CA 2124787

JP 07316092

A 19951205

CA 1994-10957

JP 1994-140957

JP 19940531

JP 2756756

B2 19980525

CN 1100408

A 19950322

CN 1994-106203

19940601

CN 1083419

C 20020424

KR 225299

B1 19991015

KR 1994-12261

JP 19940601

US 6201021

B1 20010313

US 1996-681482

19960723

JP 09118644

A 19970506

JP 1996-216932

19960731

JP 10204023

A 19980804

JP 1998-32255

19980129

JP 2935110

B2 19990816

JP 1998-32255

19980129

JP 2935110

B2 20010806

CN 1322524

A 20011121

CN 2000-127088

20000908

CN 1200703

C 20050511

US 20030096802

A1 20030522

US 2002-194247

20020715

US 7766240

B2 20070213

US 20050267167

A1 20051201

US 2005-192004

US 20050267168

A1 20051201

US 2005-192003

PRIORITY APPLN. INFO::

JP 1993-301067

A 19931105

JP 1993-301067

A 19931005

A 19940838
                   R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
                                                                                                      US 2005-192003 20050729
JP 1993-154331 A 19930601
JP 1993-301067 A 19931105
JP 1994-80982 A 19940328
JP 1994-140957 A3 19940531
JP 1996-216932 A3 19940531
US 1994-252642 B1 19940601
US 1996-681482 A3 19960723
US 2000-661054 B1 20000913
US 2002-194247 A1 20020715
 OTHER SOURCE(S): MARPAT 122:160096
OS.CITING REF COUNT: 26 THERE ARE 26 CAPLUS RECORDS THAT CITE THIS
                                                                         RECORD (84 CITINGS)
 ΙT
             Brain, disease
                    (stroke, treatment; preparation of valproate analogs as
                   neuroprotectants)
             99-66-1P 149-57-5P 1575-72-0P 3274-28-0P 5558-45-2P 5732-83-2P
 ΙT
             13949-65-0P 15331-26-7P 19986-16-4P 20406-74-0P 22635-29-6P
             28396-40-9P 31080-39-4P 31080-41-8P 33786-47-9P
             35841-43-1P 50632-58-1P 51679-74-4P 60948-96-1P 65185-82-2P
             78435-49-1P 88223-42-1P 93273-42-8P 98191-23-2P 120254-13-9P
             143100-15-6P 158017-53-9P 158017-54-0P 161088-98-8P 161088-99-9P
             161089-00-5P 161089-01-6P 161089-02-7P 161089-03-8P 161089-04-9P
             161089-05-0P 161089-06-1P 161089-07-2P 161089-08-3P 161089-09-4P
             161089-10-7P 161089-11-8P 161089-12-9P 161089-13-0P 161089-14-1P
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161089-61-8P 161089-62-9P 161089-63-0P 161089-64-1P 161089-65-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of valproate analogs as neuroprotectants)

=>

---Logging off of STN---

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Executing the logoff script...

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ENTRY | TOTAL
SESSION |
|--|---------------------|-------------------|
| FULL ESTIMATED COST | 114.36 | 300.46 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| CA SUBSCRIBER PRICE | ENTRY
-18.86 | SESSION
-18.86 |

STN INTERNATIONAL LOGOFF AT 14:11:29 ON 29 SEP 2009